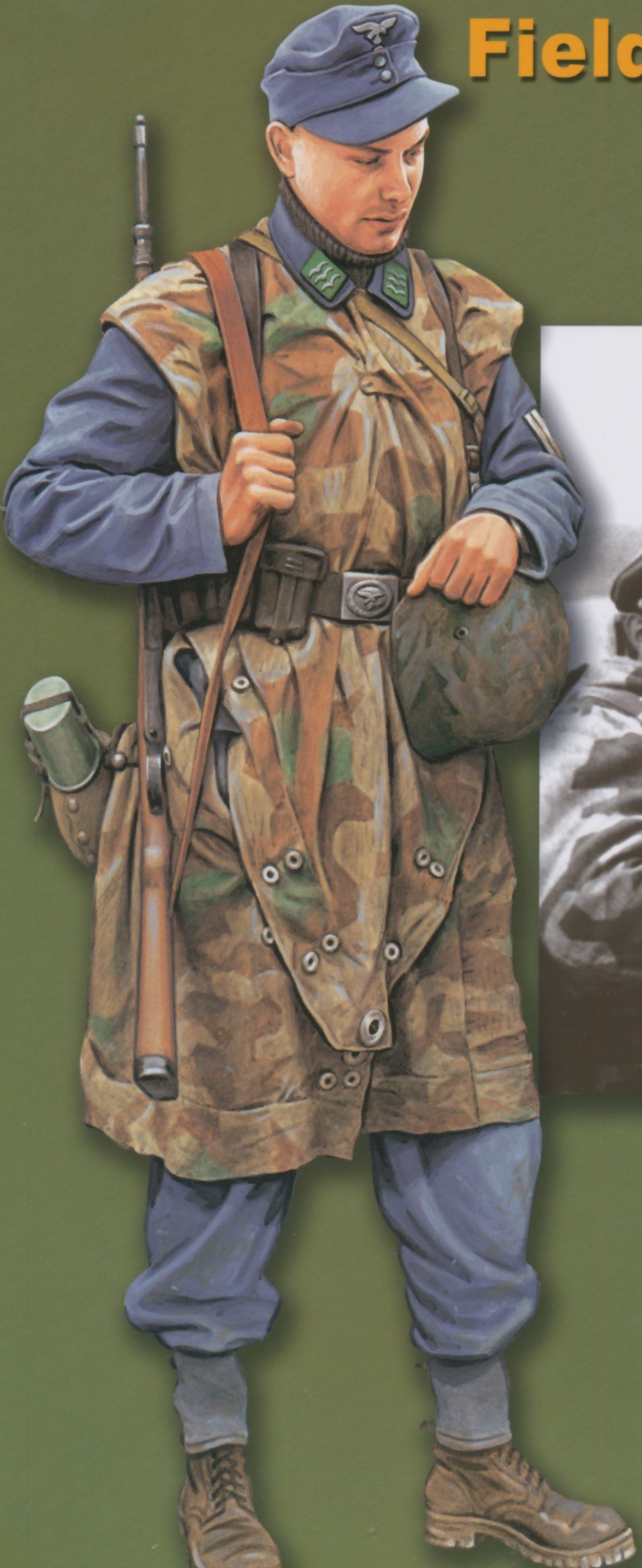
6527

Luftwaffe

Field and Flak Divisions

Robert Kirchubel & Dmitriy Zgonnik



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Text by Robert Kirchubel
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Introduction

The Luftwaffe's Plight

The relative ease of the German conquests prior to their invasion of the USSR (Operation Barbarossa) disguised many of the Luftwaffe's inherent weaknesses. Even the consequences of the Battle of Britain, which Hitler pursued only half-heartedly, were not exposed until years after the fact. Despite the Luftwaffe's stunning initial successes against the Red Army Air Force, the invasion of the Soviet Union had an immediate negative impact on the Luftwaffe; its losses on Barbarossa's first day (92 aircraft on 22 June 1941) exceed those of the Battle of Britain's deadliest day (79 aircraft on 15 September 1940).

By the time Barbarossa stalled before Leningrad, Moscow and Rostov the Luftwaffe's losses were considerable. A year later the twin disasters at Stalingrad and El Alamein plus the mounting Allied aerial assault on the Nazi Reich marked the real decline of the Luftwaffe. Its attrition rate had always been very high ("appalling" according to Williamson Murray) and only got worse as the war dragged on. The issue hung in the balance until the spring of 1944 at which point the Allied air forces basically blasted the Luftwaffe out of the skies. Hitler's ill-conceived decision to make the revolutionary Me-262 jet a bomber rather than a pure fighter contributed to this outcome.

All of these factors led to the corresponding growth of Luftwaffe ground forces beginning in late 1942 and continuing through the end of 1944. In view of mounting Luftwaffe aircraft losses the need for extensive numbers of co-pilots, aircraft mechanics, signal troops, construction engineers, etc. obviously declined. Germany never had sufficient supplies of fuel and as the war dragged on this condition drastically effected both training and operational flights. Coincidentally the increasingly attrited aerial component of the Luftwaffe could not effectively protect the Reich from the clouds of Allied aircraft overhead. That burden fell more and more to flak (*Fliegerabwehrkanonen*, anti-aircraft artillery) gunners on the ground.

Non-flying forces of Göring's "empire" consisted of a dizzying array of subdivisions and departments: purely military formations and *Luftgau* (regional) administrators; various logistic and administrative organizations in the Reich proper, throughout occupied Europe and behind the front lines; prisoner of war camps; a Luftwaffe hospital system; Security (later renamed *Festung*) forces; airfield operations (command and administration) plus maintenance (including vehicle maintenance) staffs; radar operators; a very extensive network of schools for all specialties; and, even its own forestry service. Luftwaffe signal troops alone numbered between 150,000-200,000 men (this count included radar operators). Airborne units made up an additional large category of Luftwaffe ground forces not included in this volume.

The present volume mainly covers field and flak units. Major Luftwaffe non-airborne ground forces included the units named after Göring, four Field Corps (I-IV), six Flak Corps (I-VI), 22 Field Divisions (1-22), 31 Flak Divisions (1-31) and two Searchlight Divisions (1 & 2, later identified as Netherlands/Belgium and Germany). Most of the units eventually found themselves fighting side by side with battered Army formations that were stretched to the breaking point on virtually every front.

The Various "Göring" Units

One of Göring's earliest sources of power came from his position as Interior Minister of Prussia and his corresponding control of the police functions of Germany's largest state. In September 1935, to counter growing quasi-military private "armies" being created by his rivals within the Nazi hierarchy—SS, SA, RAD (*Reichsarbeitsdienst*), etc.—Göring consolidated some Prussian police formations into "Regiment General Göring." Following the fall of France in July 1940 it was expanded to brigade size and further to "Division Hermann Göring" in October 1942. The formation reorganized as a panzer division seven months later. In May 1944 it took the curious sounding name "1.Fallschirmjäger-Panzer-Division Hermann Göring." With the creation of the sister division five months later it began its final permutation as "Fallschirmjäger-Panzer-Korps Hermann Göring."

The formation or its elements took part in the occupations of Austria, the Sudetenland and Czechoslovakia plus most of the Wehrmacht's campaigns from North Africa to the Ukraine (it was not involved in the invasion of Poland). It is perhaps best known for its participation in the battles for Sicily and Italy under the leadership of Generals Paul Conrath and Wilhelm Schmaltz. As a panzer division it had the usual Army table of organization: two panzer grenadier plus one each panzer and artillery regiments and myriad battalion-sized support units. Thanks largely to Göring's patronage it maintained a high standard of quality men and equipment until the last months of the war. Its remnants ended the war fighting around the Saxon capital of Dresden.

Field Divisions

The most egregious waste of Luftwaffe manpower in a futile effort was the creation of the Field Divisions beginning in the second half of 1942. As Operation Blau in the southern USSR and Rommel's offensive into Egypt ground to a halt, Luftwaffe aircraft losses mounted and Göring could no longer justify keeping many thousands of out-of-work navigators, aircraft mechanics, airfield construction engineers, etc. away from the front. Hitler wanted the Luftwaffe to give up the equivalent of seven division's worth of men to the Army. The *Reichsmarshall* balked at the thought of polluting his dutiful blue-clad National Socialists by turning them over to the reactionary Army.

Göring, jealous of his prerogatives as always, countered with an offer to create his own Field Divisions. Hitler agreed to this arrangement. The generally satisfactory performance of Group Meindl (see below) and the seven newly organized *Feldregimenter der Luftwaffe* following the culmination of Barbarossa gave a false impression of the Luftwaffe's ground fighting capabilities. Therefore it initially appeared that the creation of these Field Divisions was not completely illogical. Göring called for volunteers from throughout the Luftwaffe on 17 and 19 September 1942 (officers and enlisted men, respectively). In the late summer and early autumn the Luftwaffe began what was to become the hasty and generally poor training of these units. Luftwaffe combat veteran airborne cadres conducted much of this early training but in many cases instruction lasted only a few weeks prior to employment in combat.

The Field Divisions' preparation program accelerated and became even less satisfactory in November 1942 following Stalingrad and El Alamein. The Luftwaffe had long laid claim to some of the best men in Germany's manpower pool (along with other elite branches such as the Waffen SS and the U-boat arm) so there is no doubting their individual quality. However, their skills as infantrymen, armored vehicle crewmen, artillery gunners, etc. were suspect. A more significant problem was that of officer and NCO leadership. Deplaned bomber pilots and former technical officers simply were not able to effectively lead men in ground combat. A prime example is that the commanders of two Field Divisions were Luftwaffe major generals who had previously been head of the meteorological service and the judge advocate general—hardly good preparation for division command. The Army had to repeatedly reinforce these units with new, better qualified officers and NCOs plus equipment from its own very limited stocks.

The first of the Field Divisions began as *ad hoc* formations employing unutilized Luftwaffe resources near the Leningrad sector under Major General Eugen Meindl (an artillery officer who had transferred from the Army only the year before). Others came on line as they completed their training. While most fought in the USSR, a few participated in the Italian or western European campaigns while still others pulled occupation duty in Norway and Denmark. By doctrine each numbered approximately 12,500 men although by late 1943 strength varied between 6,000-16,000. The Field Divisions were generally organized with four *Jäger* battalions but often no regimental headquarters. A severe limiting factor was that they often only possessed one artillery battalion (instead of the usual artillery regiment found in Army divisions) and their support elements were only company sized (instead of battalions used in Army divisions). Most had to make do with second-rate or captured equipment.

Once their overall weaknesses had been revealed on the battlefield, the Red Army often singled out these suspect formations as the target of the main effort in their attacks. Most Field Divisions fighting against the Soviets and those in western Europe were obliterated after only a few weeks combat. Those that survived until November, 1943 were absorbed into the Army as Field Division (L)—obviously the "L" stood for "Luftwaffe." Only six lasted until July 1944. Two, the 18. and 19., were eventually renamed the 18. and 20.Volksgrenadier-Divisions. The Field-Divisions' uniformly poor performance in combat crushed Göring's already ruined ego. However, one should not waste too much sympathy on the *Reichsmarshall*: he callously threw masses of unprepared technicians to the wolves.

The graph below shows the date each Field Division was established and destroyed plus its main theater of action.

	Established	**Destroyed**	**Main Theater**	**Remarks**
1	Summer 1942	Apr-44	Army Group North	
2	Sep-42	Jan-44	Army Group Center	Destroyed before it could be absorbed into the Army
3	Summer 1942	Jan-44	Army Group Center	
4	Sep-42	Jun-44	Army Group Center	
5	Sep-42	May-44	Army Group "A"	
6	Sep-42	Jun-44	Army Group Center	
7	Summer 1942	Apr-43	Army Group Don	Destroyed before it could be absorbed into the Army
8	Oct-42	May-43	Army Group Don	Destroyed before it could be absorbed into the Army
9	Autumn 1942	Jan-44	Army Group North	
10	Autumn 1942	Feb-44	Army Group North	
11	Oct-42	May-45	Balkans	
12	Nov-42	Mar-45	Army Group North	
13	Nov-42	Apr-44	Army Group North	
14	Autumn 1942	May-45	Norway	
15	Nov-42	Oct-43	Army Group South	
16	Autumn 1942	Jul-44	France	
17	Autumn 1942	Sep-44	France	
18	Autumn 1942	Sep-44	France	Renamed 18.Volksgrenadier-Division
19	Mar-43	Aug-44	Italy	Renamed 20.Volksgrenadier-Division
20	Mar-43	Dec-44	Italy	
21	Jun-42	May-45	Army Group North	Originally Group Meindl
22	Autumn 1942	Autumn 1943	Army Group North	Disbanded before employed

Flak Forces

As powerful, flat-trajectory, high rate-of-fire weapons the various flak guns had applications against targets both in the air and on the ground. During the Spanish Civil War, the year old Luftwaffe learned to aim its flak guns horizontally at ground targets: medium guns proved able to penetrate any armor (even that of ships) while light guns put out a volume of fire that made them deadly against infantry, trucks and other "soft" targets. All other branches of the Wehrmacht had flak forces but the antiaircraft mission was central to the Luftwaffe.

Luftwaffe flak had two main missions: defense of the Reich and protecting forces in the field. Mobile flak formations from batteries to corps were employed with frontline forces in every campaign. When first the immense size of the USSR and later the overwhelming air superiority of the Allied air forces diluted the Luftwaffe's flying strength, flak was the only protection from aerial attack that German ground elements had. Likewise, flak assumed the main responsibility of holding off British and American bombers that increasingly dominated the skies over the German Fatherland.

Flak was divided into three categories based on caliber: Light—12.7mm to 2cm; Medium—3.7 and 5.0cm; Heavy—8.8cm and larger. In August 1940 Luftwaffe flak forces counted 528,000 men. In 1944 alone that number rose by a quarter million. By the autumn of that year there were 1,110,000 personnel manning Germany's flak defenses, including 450,000 non-Luftwaffe men—RAD, Home Guard, women, POWs, etc. This means fully one half of the Luftwaffe's strength was involved in the Reich's flak defense. Over 65,000 women served in the flak branch as *Flakhelferinnen*; some searchlight units were made up of over 90% women. The graph below gives an idea of the growth of the flak arm (in numbers of batteries) defending the Reich during the war:

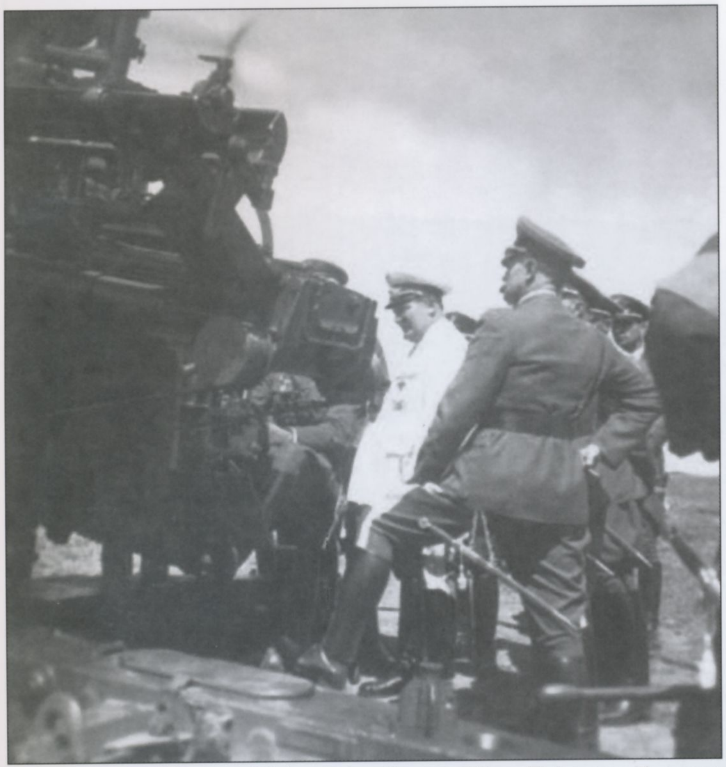
	Heavy	**Medium/Light**	**Searchlight**
Aug-40	791	686	221
Aug-44	2,655	1,612	470

The strategic flak defense of the Reich stretched from the North Sea to Switzerland (the British dubbed this the Kammhuber Line). Its effectiveness required coordination between gunners, searchlights, radar and command and control elements usually in conjunction with fighter aircraft. Of course the primary purpose of flak was to shoot down enemy aircraft but it had a number of critical second order effects: for guns—force bombers off target and break up their defensive formations; for searchlights—degrade the night vision of pilots and bombardiers plus silhouette bombers for night fighters.

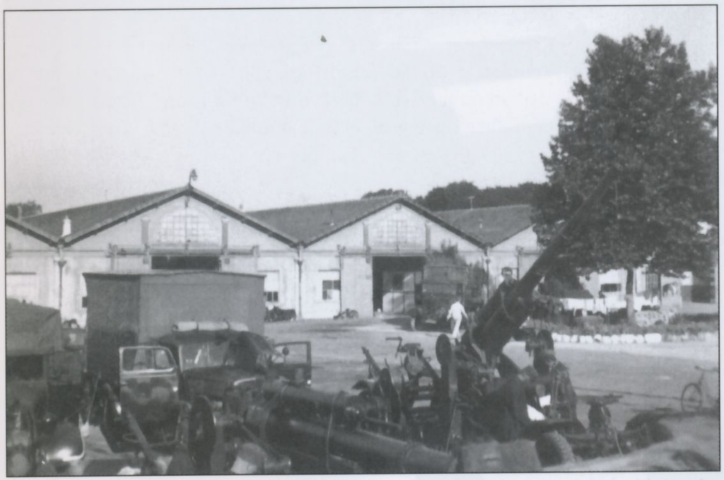
Conclusions

The Luftwaffe suffered from incompetent leadership at the very top but otherwise possessed well-intentioned, skilled and contentious generals, officers and enlisted men. It was involved in combat in Spain just one year after its creation and in a full-fledged world war three years after that. It was arguably the world's best air force in 1939 but due to a number of factors it soon lost any advantages. By the second half of the war operational requirements and the weak German economy limited the Luftwaffe principally to one-engine fighters and a few ground attack aircraft. In its defense the Luftwaffe was the only branch of the Wehrmacht that fought without pause from 1939-45.

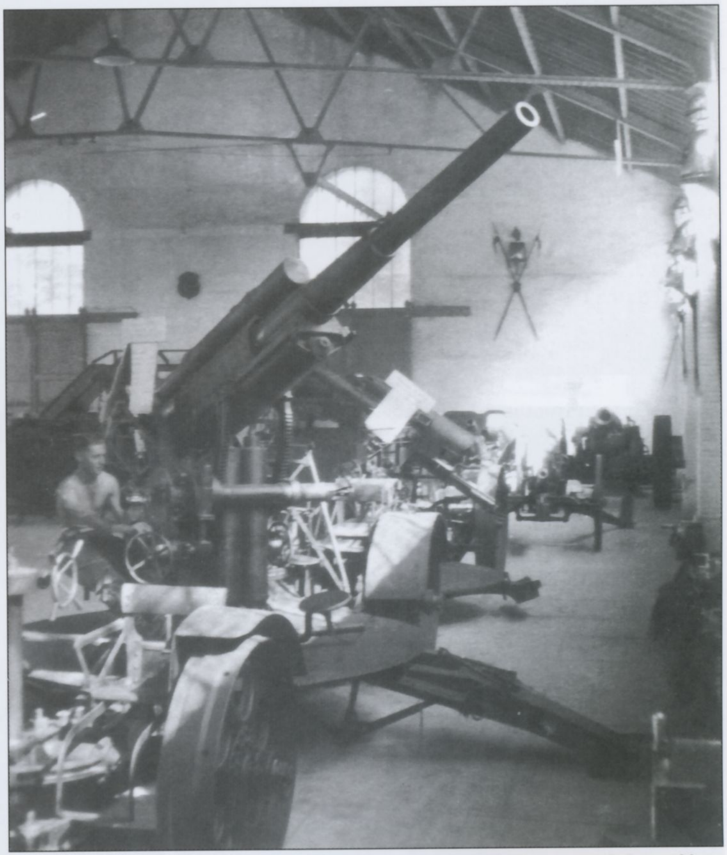
By the time Operation Barbarossa crested at Moscow in December 1941, the Luftwaffe was *de facto* becoming primarily a ground force. Ironically, primarily due to Göring's need to compete against Himmler within the bizarre arena of Nazi internal politics, as the Luftwaffe morphed into less of an "air" force the bigger its personnel strength grew. Ultimately the size of its land-based combat elements far surpassed that of the aerial (which does not even take into account the massive non-flying component that makes up any air force). In addition to the huge flak branch the Luftwaffe ground forces eventually included the two mechanized "Göring" divisions, ten parachute and 21 field divisions plus countless smaller regiments, *Abteilungen*, etc.—all of which **should** have belonged to the Army. So much for the "efficient German" stereotype!



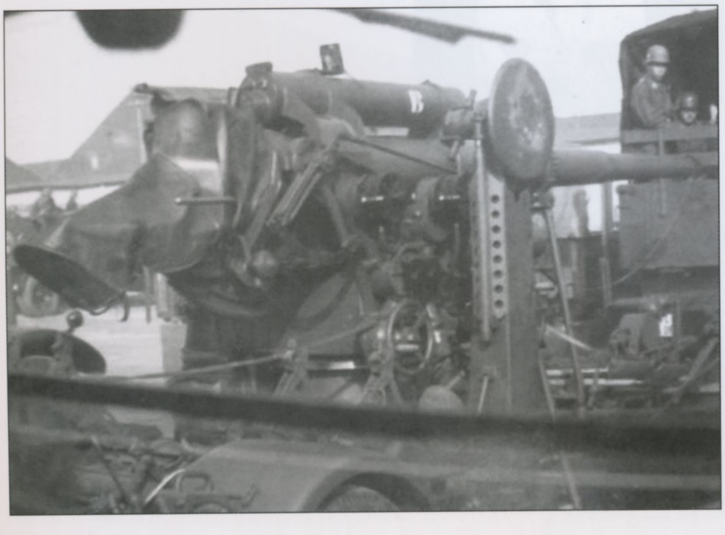
Reichsmarschall Herman Göring inspecting an 8.8cm Flak gun with generals (note trouser stripes) and other senior officers in attendance. Göring was a critical asset for Hitler's seizure of power and enjoyed immense prestige through Operation Barbarossa.



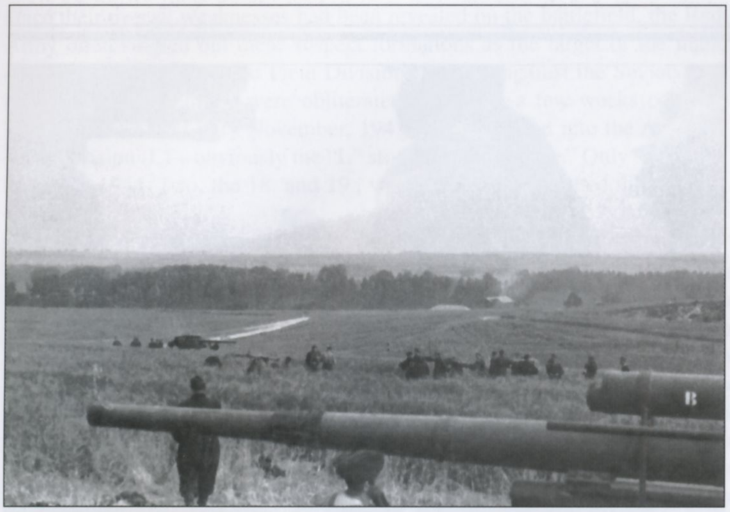
Peaceful-looking scene at pre-war *Kaserne* (barracks) motor pool with trucks and 8.8s parked in orderly fashion. Technicians in center appear to be consulting the guns' manuals.



In a *Kaserne* workshop, a shirtless technician works on an 8.8cm. Note absence of rubber tires on early model trailer and other weapons present.

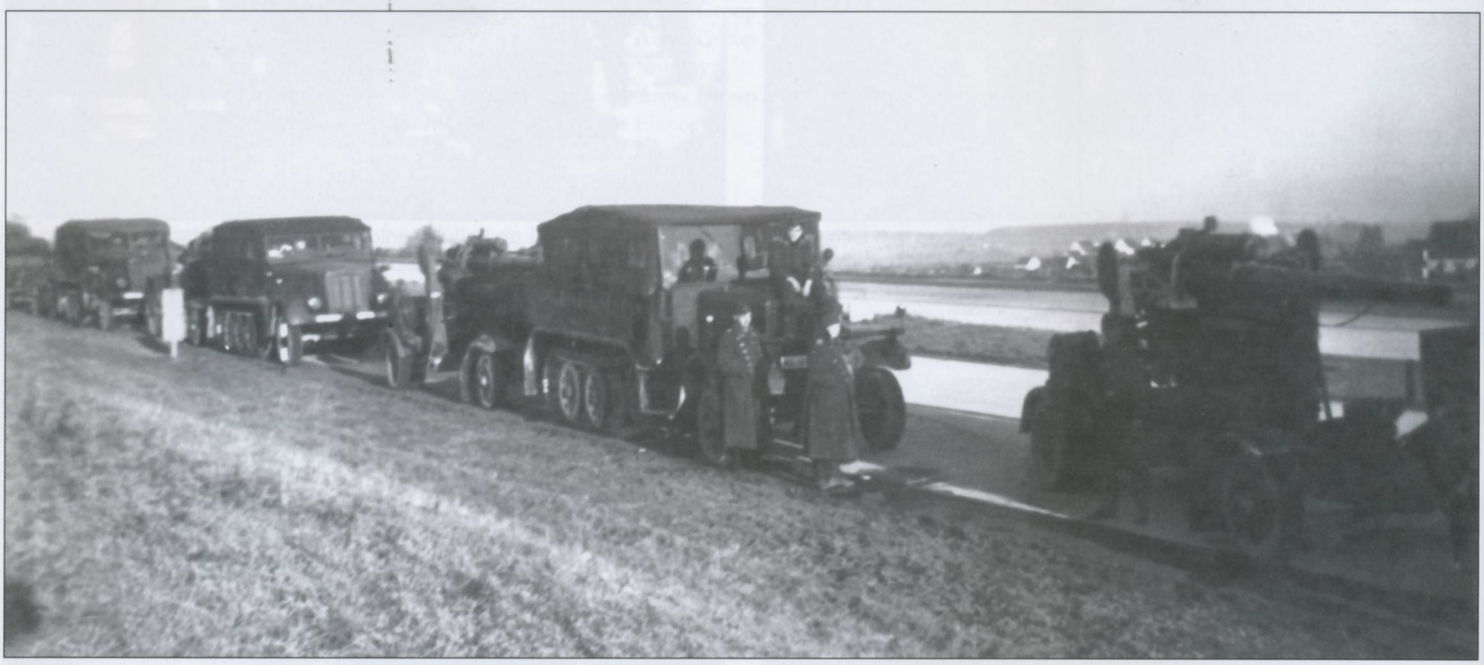


Another *Kaserne* motor pool scene. An 8.8cm prepares to move out with its crew in the back of same truck that will tow the gun. Perforated device hanging on gun's upright leg is spike driven into the ground to prevent recoil from shifting the gun once situated.

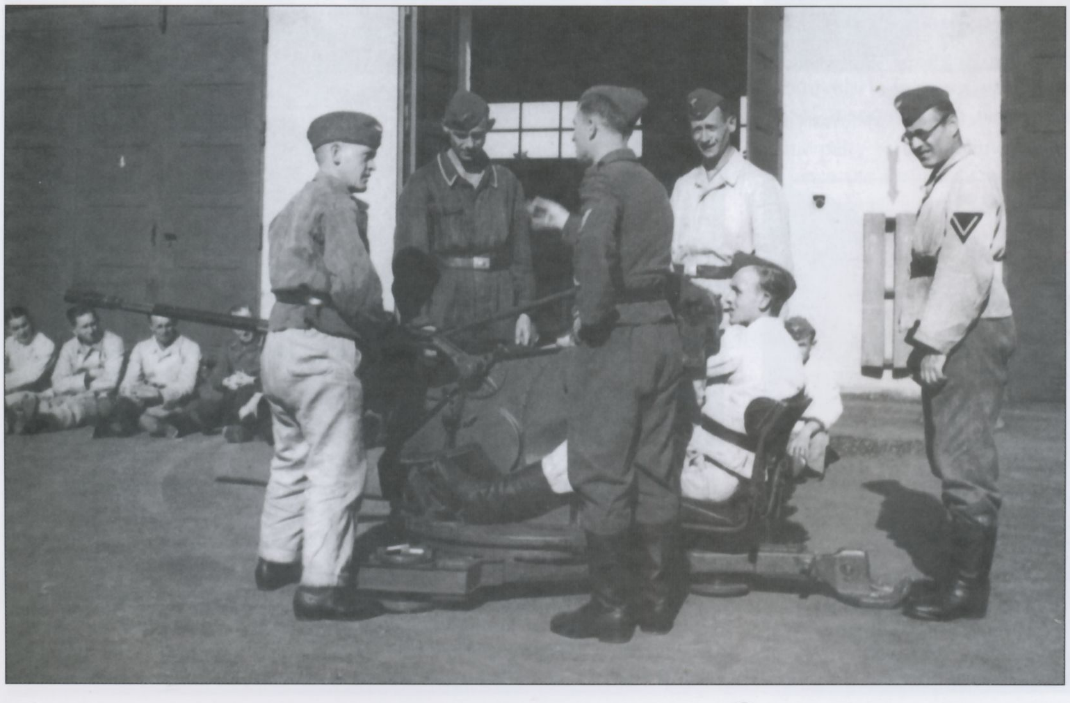


Pre-war field training for 8.8cm crews. Gun in foreground appears to be same "B" from earlier photos. In middle distance another 8.8cm at center-left and a rangefinder in center-right are put into operation.

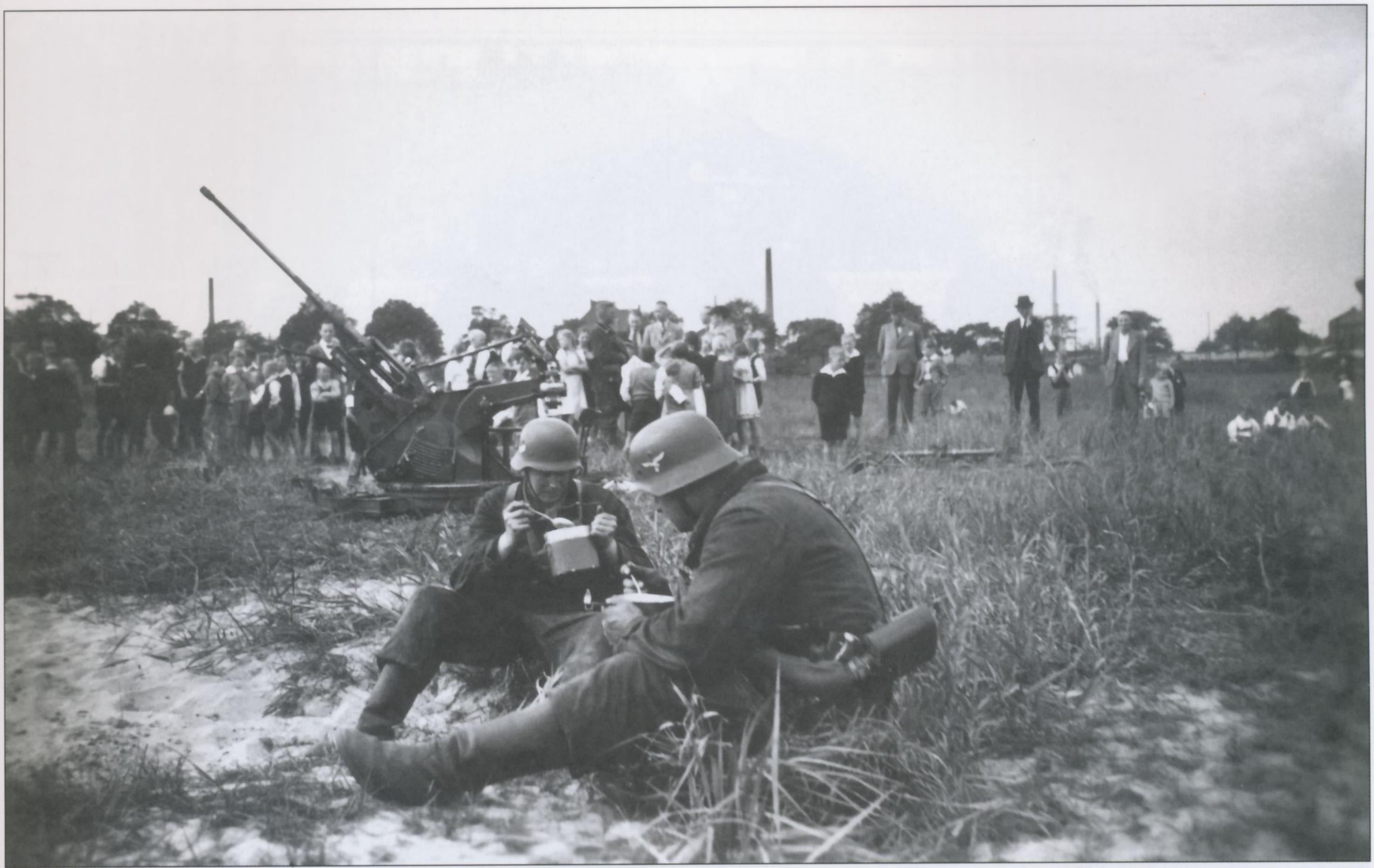
More peacetime field training, here apparently in the German countryside with a factory smoking on the horizon. A range finder is set up on the right as are two sets of shelter quarters stitched together to create sleeping areas for the gunners.



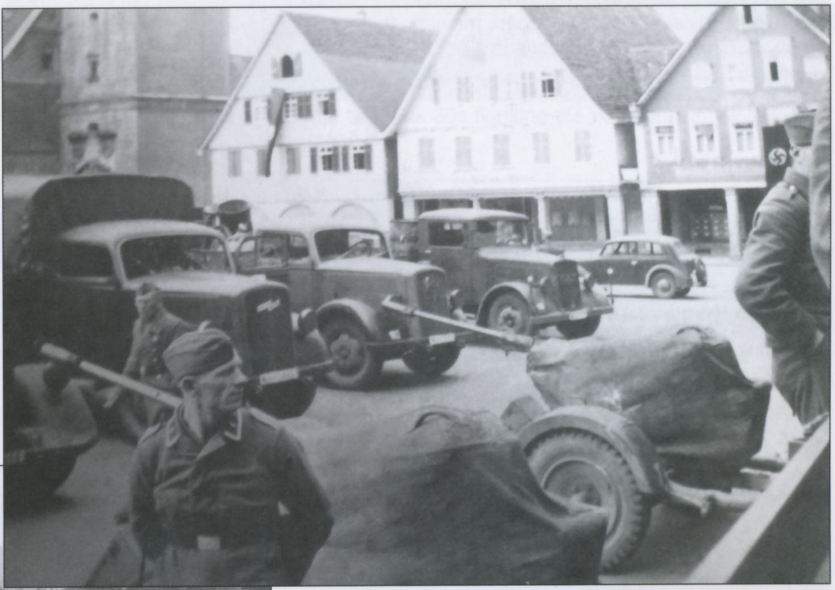
An 8.8cm unit convoy takes a rest halt, probably alongside a divided Autobahn. Vehicles are Sd.Kfz. 7 prime movers.

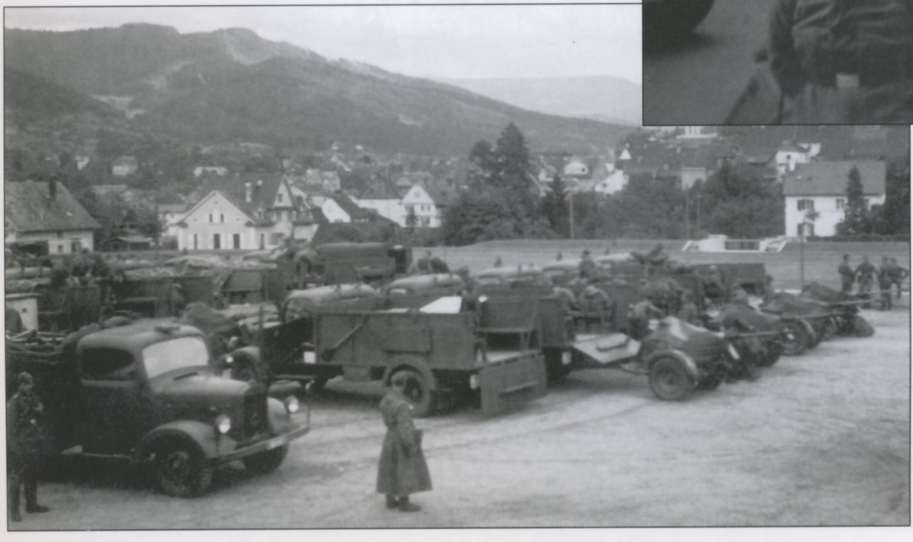


Instruction on a 20mm Flak 30 in the *Kaserne* motor pool. The *Feldwebel* (or NCO, center, facing camera) is wearing one-piece coveralls, *Gefreiter* (corporal) doing the talking wears the *Fliegerbluse* (air crewman's blouse) while his students wear the light colored *Drillichanzug*. Another gun crew takes a break along the wall waiting its turn.

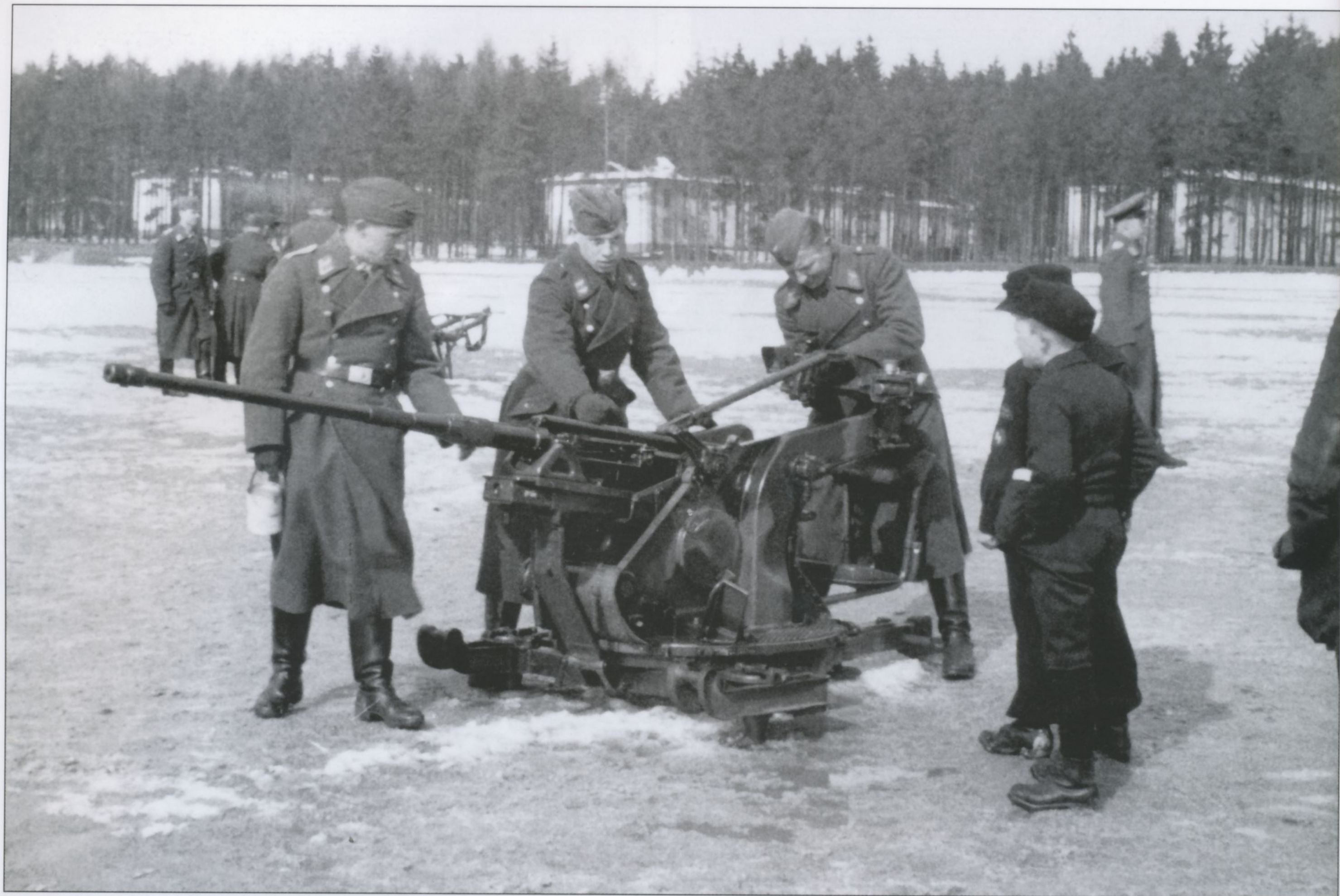


Two Flak 30 gunners dressed in coveralls eat lunch from their M31 mess kits. Probably a peace-time photo, the gun has attracted the attention of quite a few civilians from surrounding neighborhood.

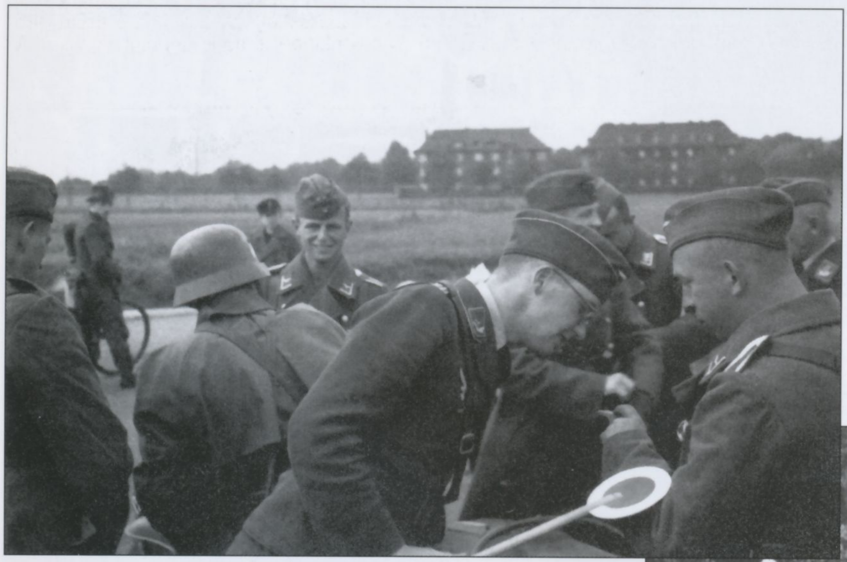




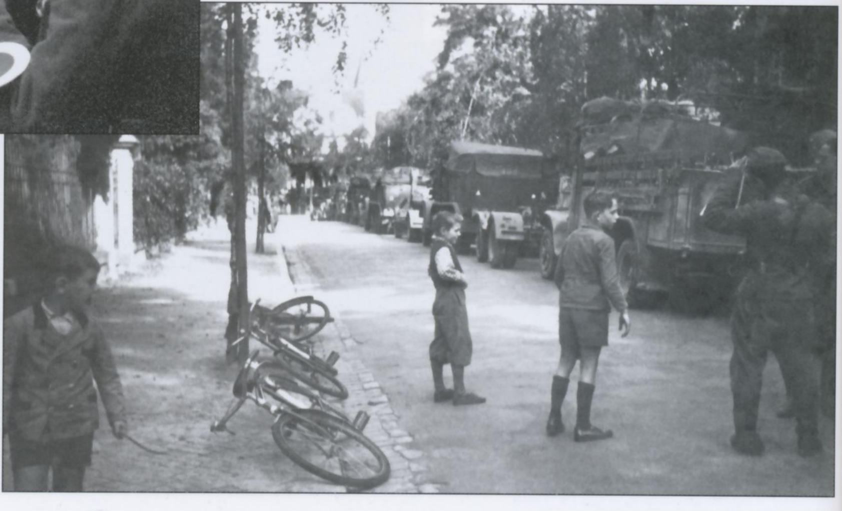
Two photos of Flak 30 units in the square of German towns prepare to move out. Guns are mounted on their *Sonderanhanger (SdAnh)* trailers and towed by Opel Blitz trucks. Notice Nazi flags hanging from buildings.



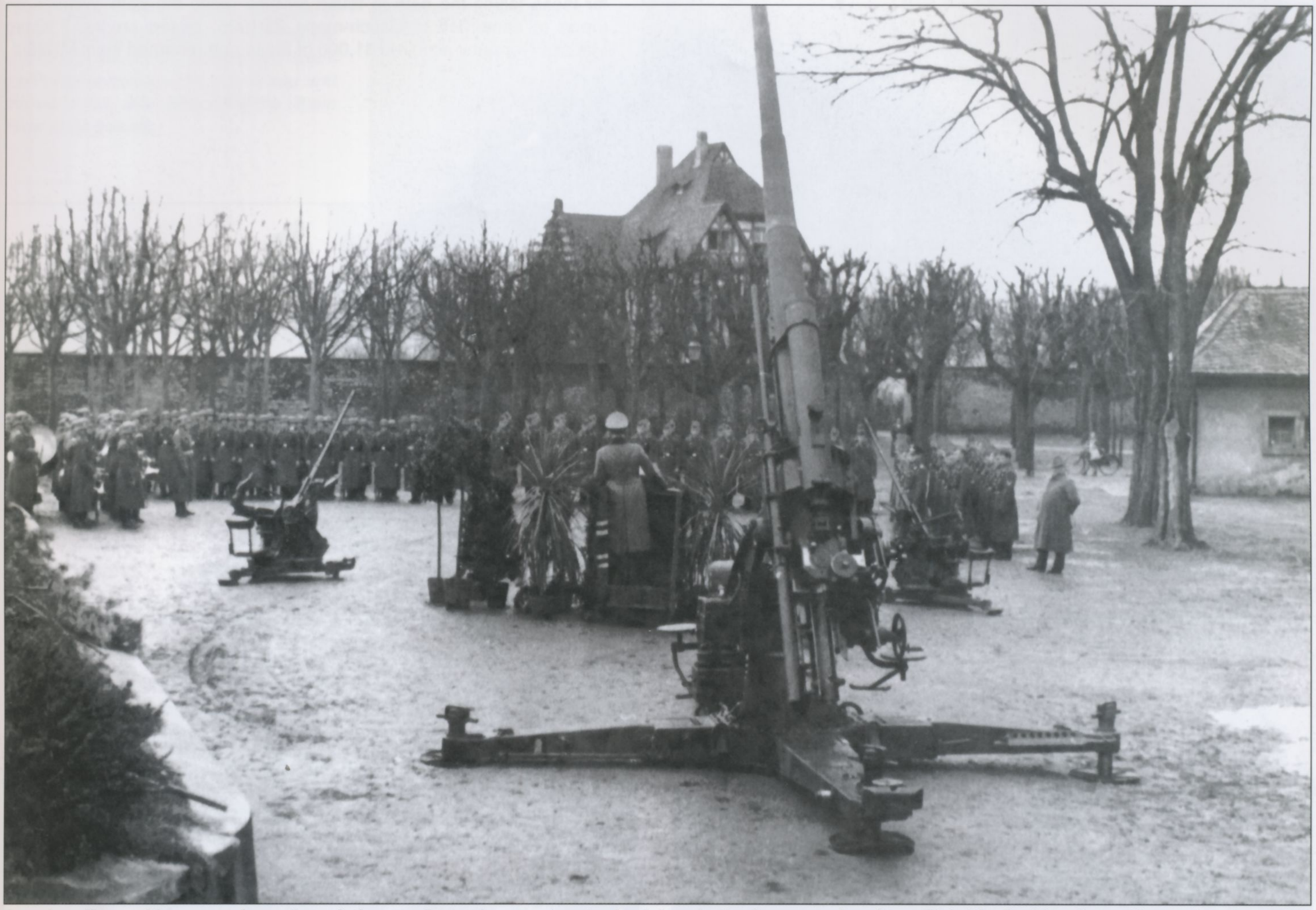
Three Field Division Flak 30 gunners maintain their weapon as two youthful *Flakhelfer* look on. Especially after Stalingrad these "helpers" could be males from 16-60 years old or females between 17-50.



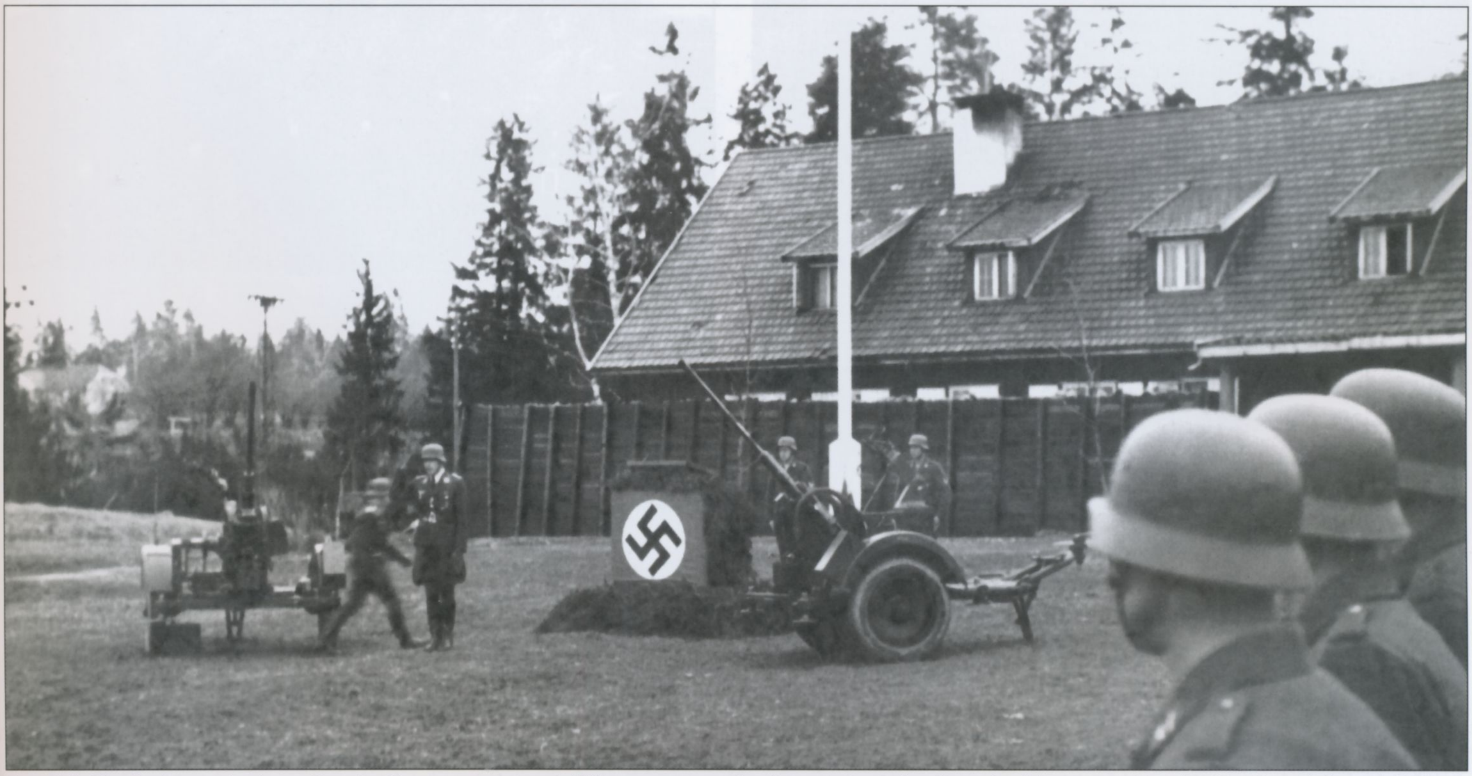
In the shadow of their *Kaserne* a convoy gets organized. *Oberleutnant* in center has white hand-signal disc with red center for controlling vehicle traffic. Motorcycle rider in helmet wears *Kraftfahrerschutzmantel*.



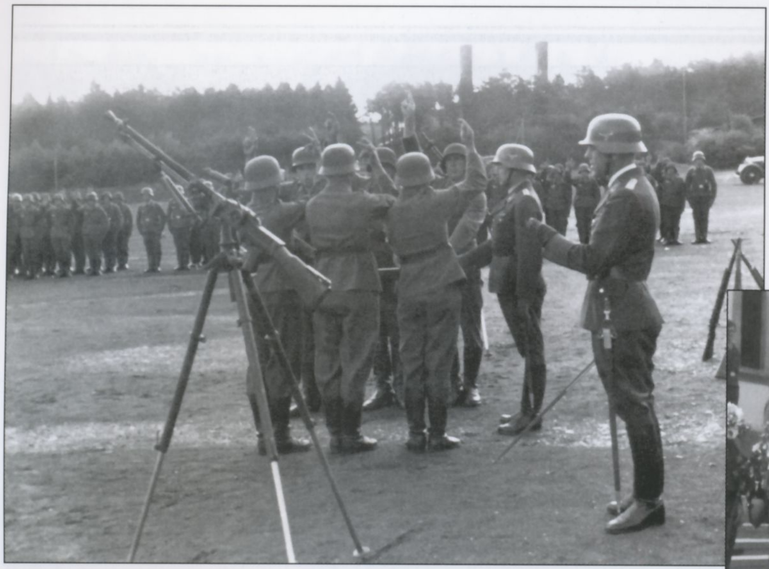
Another rest halt for an 8.8cm unit's convoy, in this case along the street of a German town. Guns, prime movers and heavily laden Magirus trucks are clearly seen. The exciting sight has caused some German boys to abandon their bicycles.



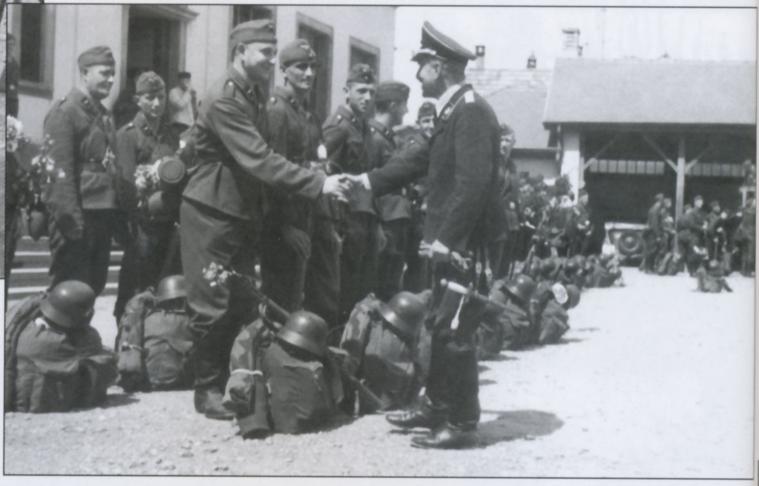
A senior officer addresses a formation of airmen all wearing greatcoats. An 8.8cm in the foreground and two Flak 30s flanking the podium point skyward. A band can be seen on the left.



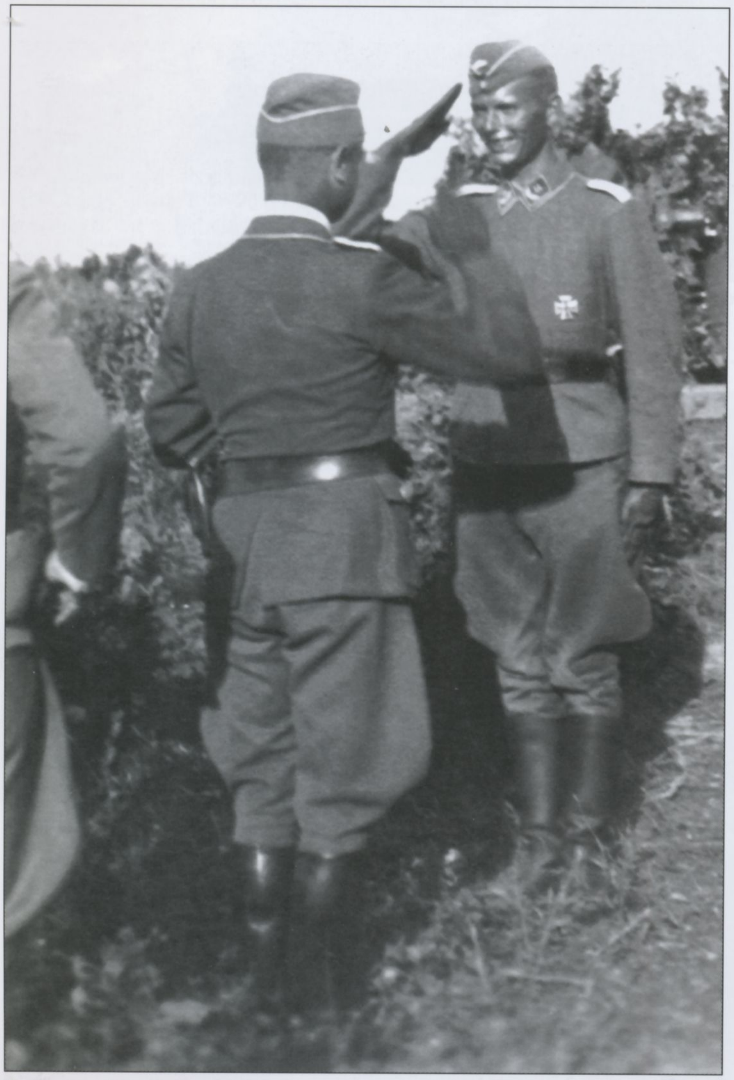
Two Flak 30s flank speaker's podium in *Kaserne* courtyard. Officers are wearing formal *Ausgehuniform* (walking out uniform) with all medals and Jodhpur riding breeches. Officer on left is a blur in his brisk "adjutant's walk."



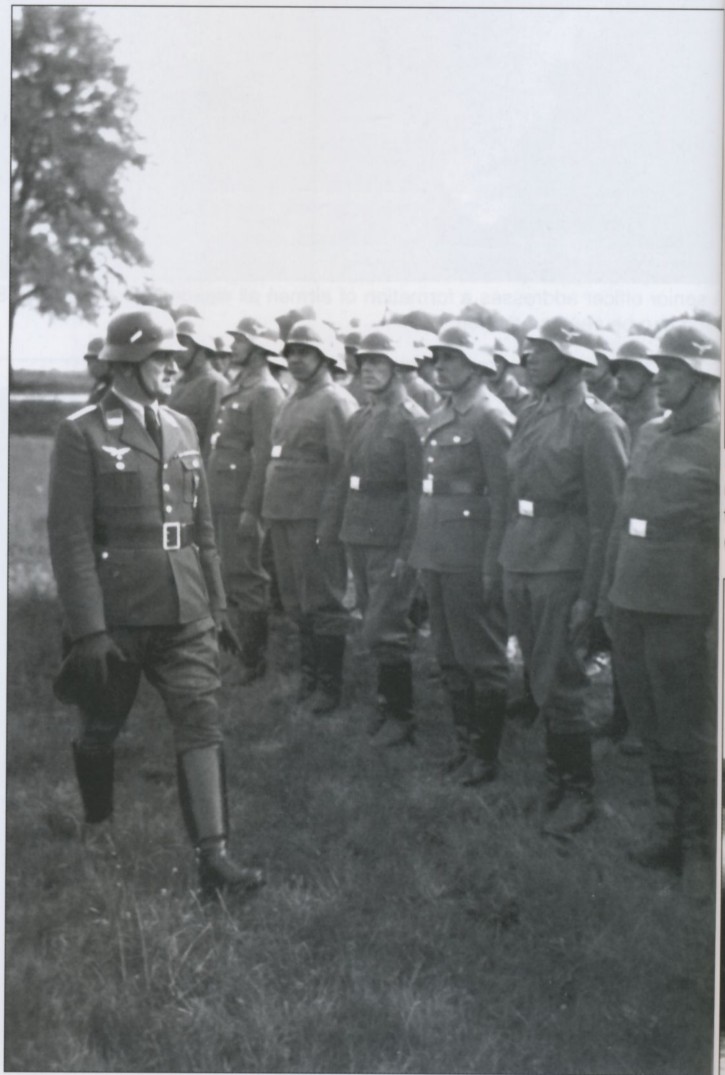
Ceremony surrounding Field Division airmen swearing an oath. Lieutenant at right reads oath while another holds a sword horizontally for those taking the oath to touch as they recite the oath. Weapon on tripod at center-left is Czech-made ZB1926, based on the 7.92mm Mauser. Germany acquired 31,000 of these and renamed them MG26(t).



An officer wearing his ceremonial dagger sending off Field Division enlisted men. Flower bouquets and oak-leaf sprigs are in men's hands and gun barrels. Rolled camouflage shelter halves over rolled blankets cover wartime-era canvas pack packs that replaced leather pre-war versions.



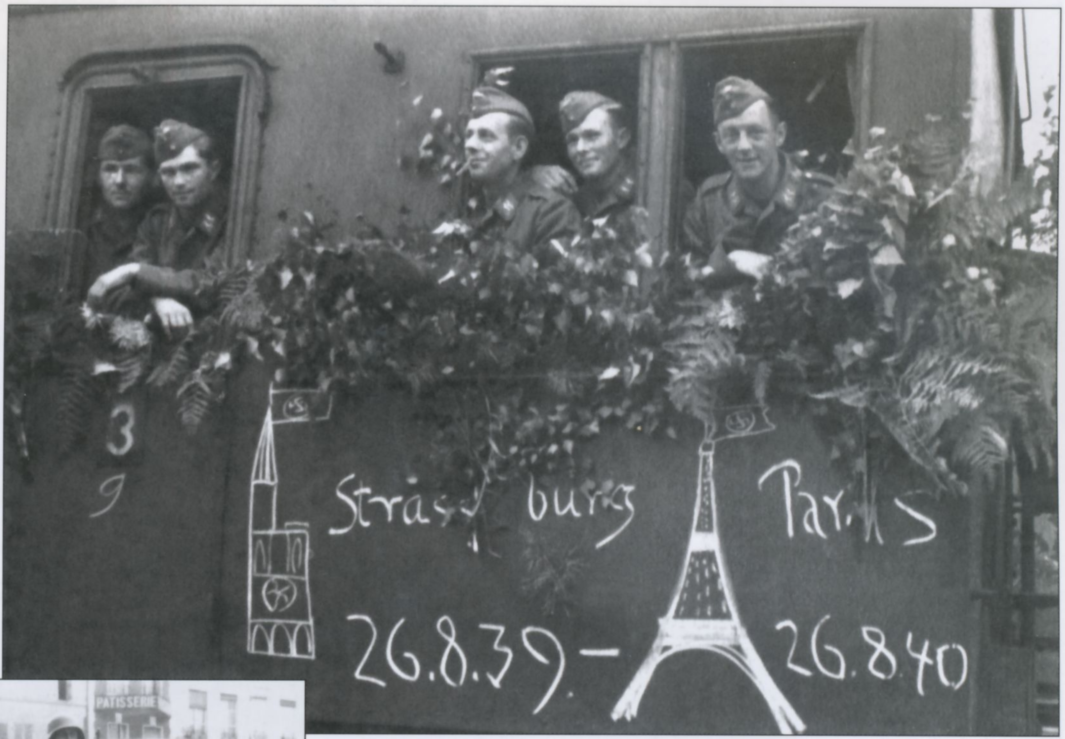
Tanned and smiling captain salutes after receiving his shiny new Iron Cross 1st Class. Button-hole ribbon of his Iron Class 2nd Class can be seen just above superior officer's arm. Silver braid on collars and *Feldmütze* (side cap, nicknamed *Schiff*) of both officers are clearly visible.

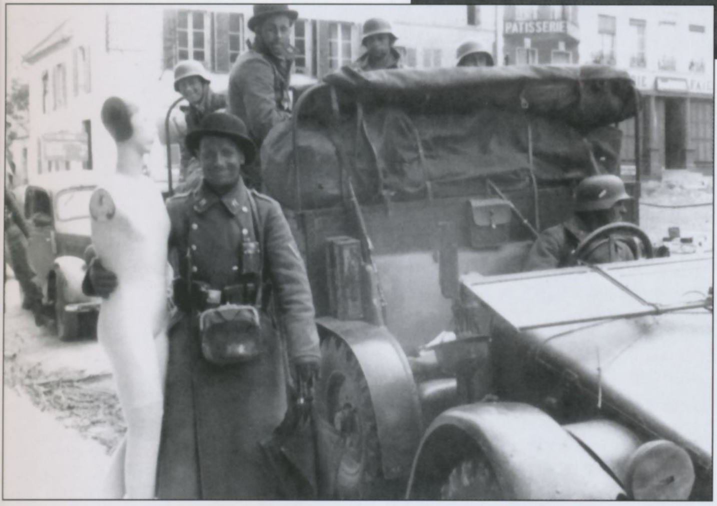


Stern looking major wearing standard four-button *Tuchrock* (service tunic) and top boots reviews Field Division troops in a field formation. Enlisted soldiers wear mix of service jackets and *Fliegerbluse*. Judging by lack of rank and wartime decorations these are brand new recruits.

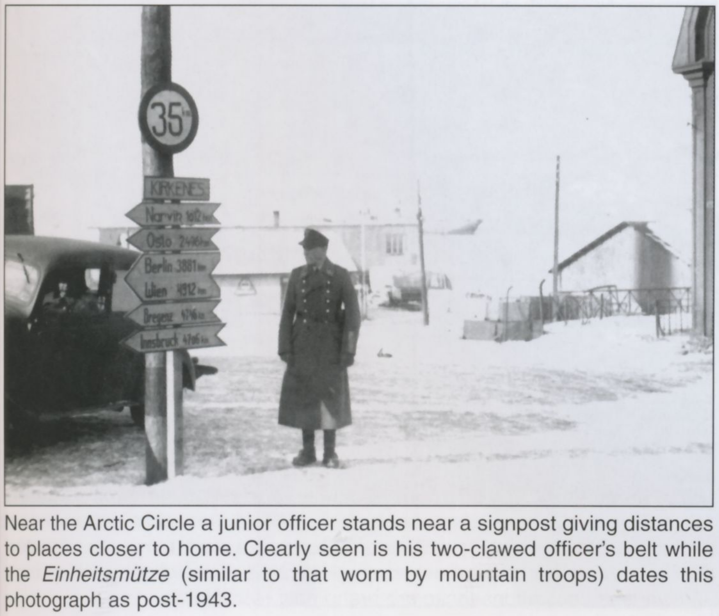
Occupation Duty

Smiling airmen hang out the windows of a decorated railcar. Judging by the dates chalked on the car's side their unit spent the Polish campaign, the phony war and the war in the west defending the Rhein River at Strasburg.

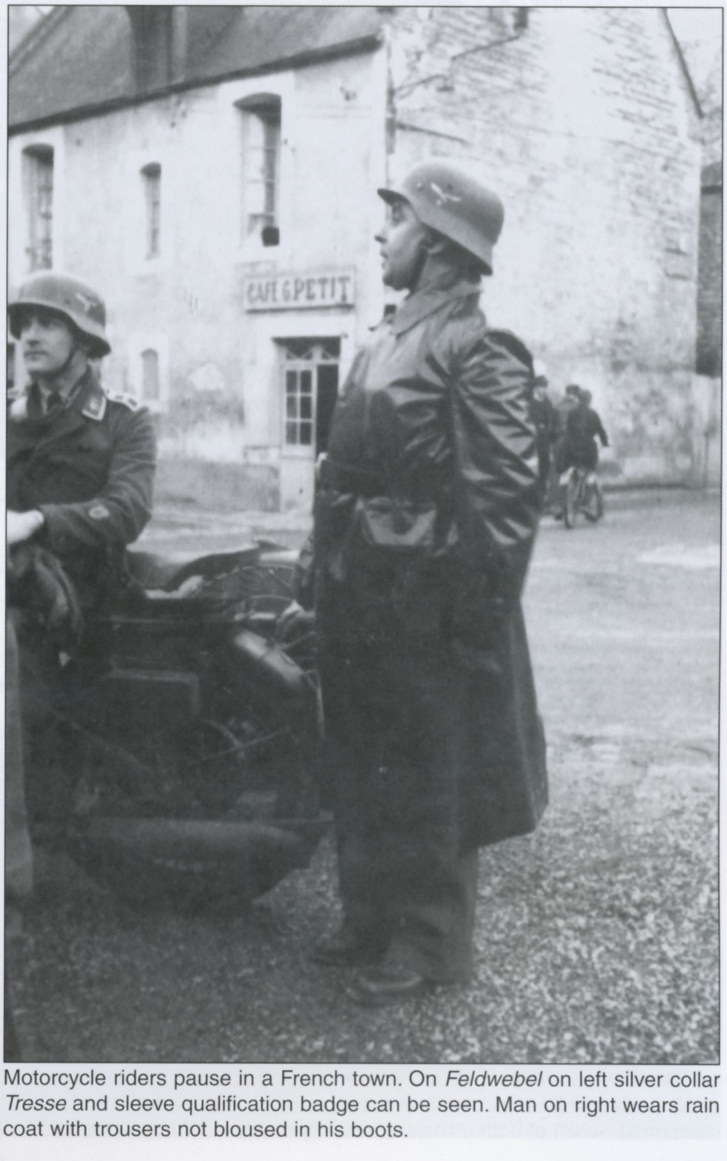




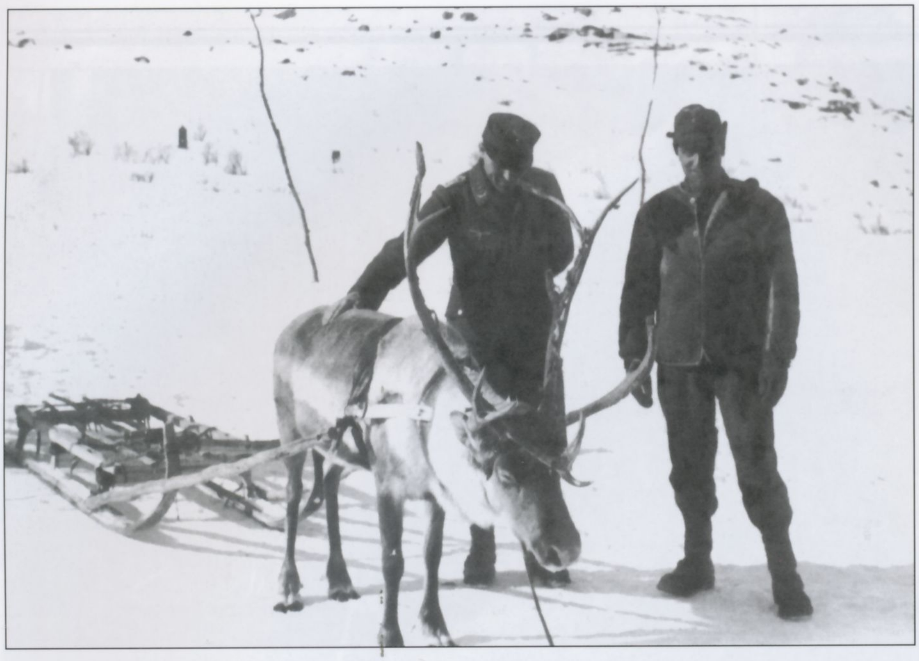
Gefreiter clowns around with a mannequin, bowler hat, ladies purse and umbrella. Standard issue flash light hanging on left great coat button seems to be only regulation uniform item. His squadies in back of Krupp Schnautzer (one also wearing a bowler) look on.



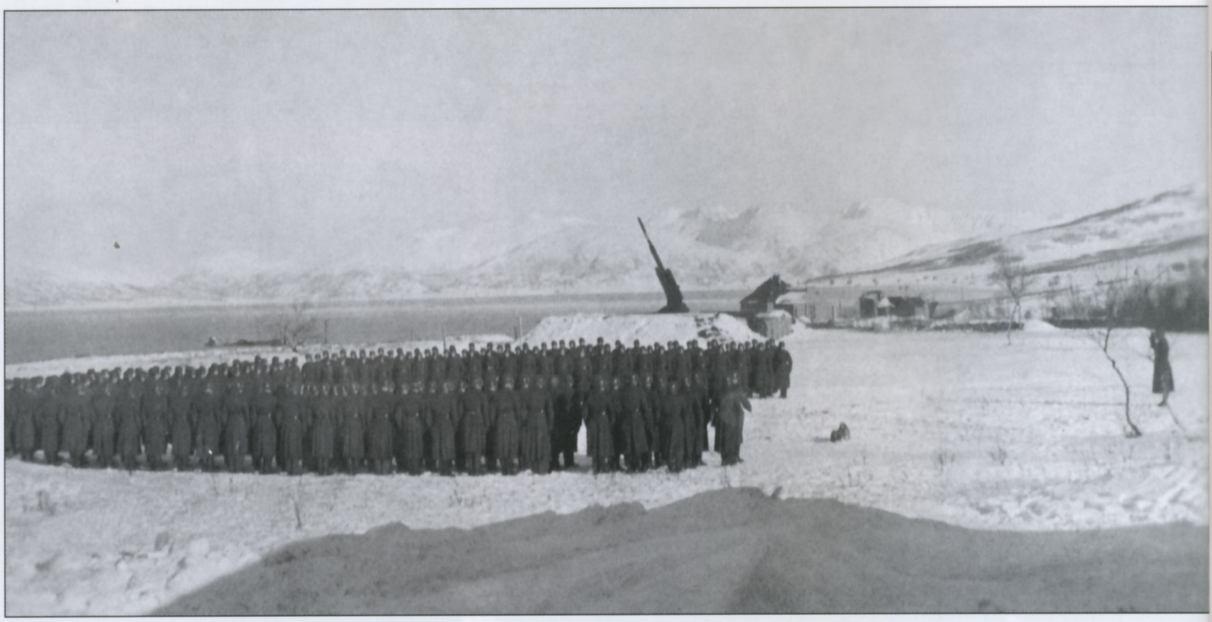
Near the Arctic Circle a junior officer stands near a signpost giving distances to places closer to home. Clearly seen is his two-clawed officer's belt while the *Einheitsmütze* (similar to that worm by mountain troops) dates this photograph as post-1943.



Motorcycle riders pause in a French town. On *Feldwebel* on left silver collar *Tresse* and sleeve qualification badge can be seen. Man on right wears rain coat with trousers not bloused in his boots.



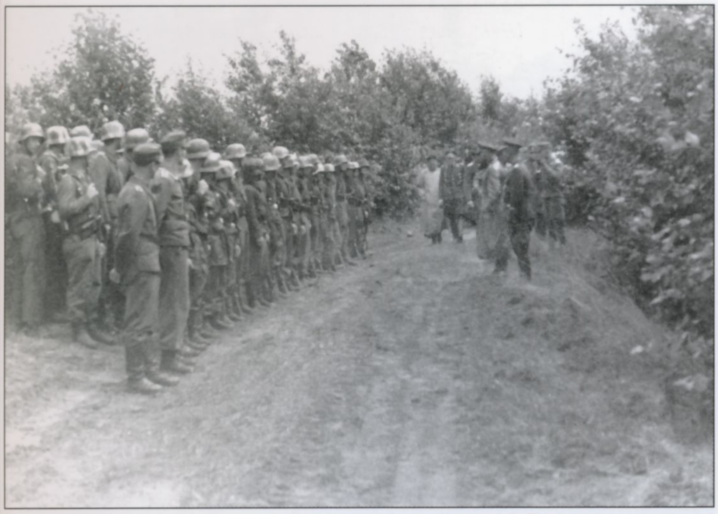
Two airmen and a reindeer pulling a sled in Norway. Mar on right wears semi-official sheepskin jacket (*Pelzjacke* common in colder climates. Sleeveless sheepskin vests (*Pelzweste*) were also worn, both often with ran insignia sewn on.



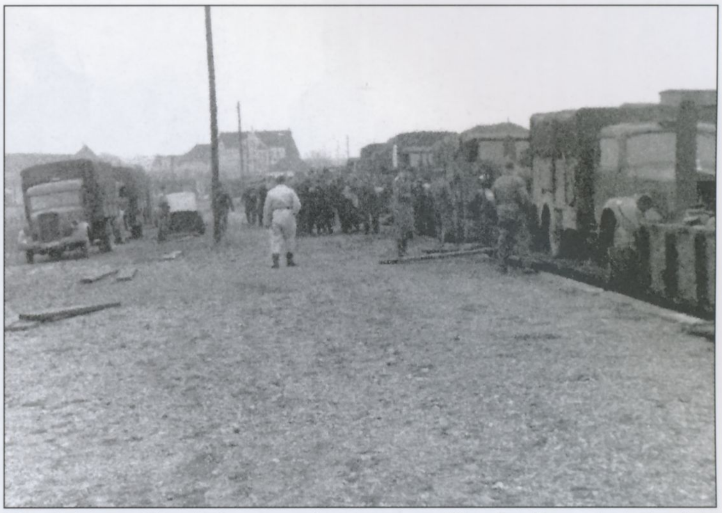
A relatively large formation—possibly a battalion of three batteries in a "U" shape in the shadow of an 8.8cm. Airmen wear great coats but not helmets. Hitler (and Churchill!) were obsessed with Norway and maintained an inordinate amount of forces there to the detriment of other critical theaters.

An 8.8 guardin occupied Norway. Thre heavy, three light an 17 mixed flak batteries mostly from the 29.Flak-Division, guarde Norway. Additionall Norway consume large numbers o Wurzburg, Freya an Wassermann radars not to mention nava radar, neede elsewhere to defend th Reich.

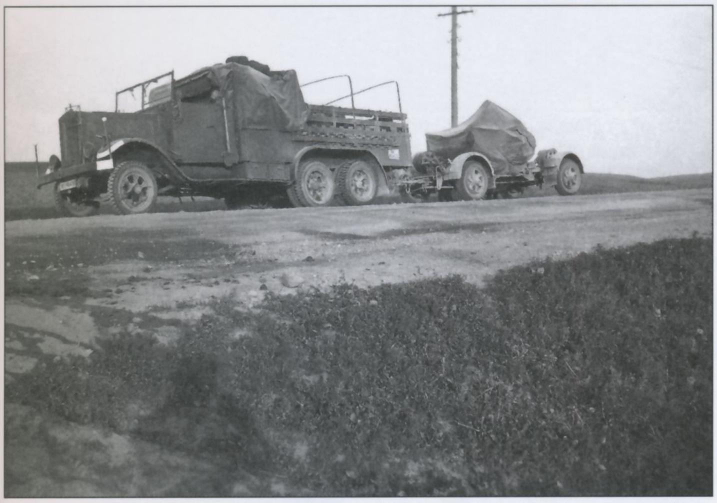
Hermann Göring Division



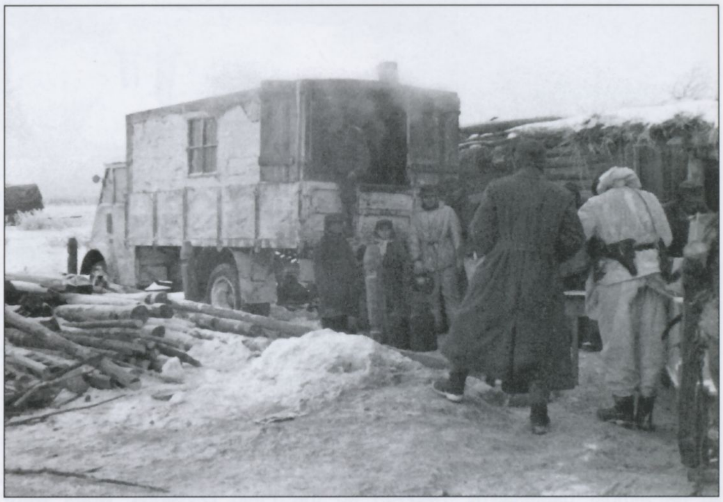
Field formation of division troops alongside a dirt road. Present are a great variety of uniforms: greatcoat (senior officer in front of formation), *Tuchrock* and *Fliegerbluse*. Headgear includes *Schirmmütze* (officers), *Einheitsmütze* and helmets (some with striped camouflaged).



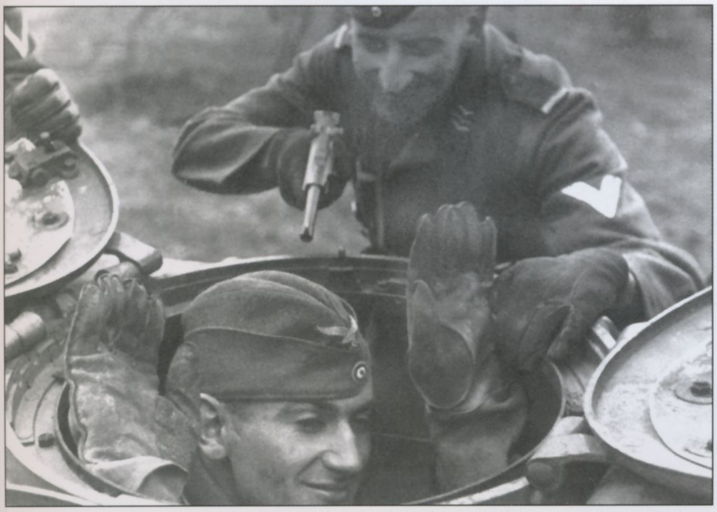
The division rail loads for strategic movement. Mix of uniforms includes light *Drillichanzug* (center) and coveralls (right) plus others. Vehicles include a Ford (left), Opel Blitz (second from left) and Mercedes (right). The variety of non-standard vehicles represented here created a maintenance and supply nightmare for the Germans throughout the war.



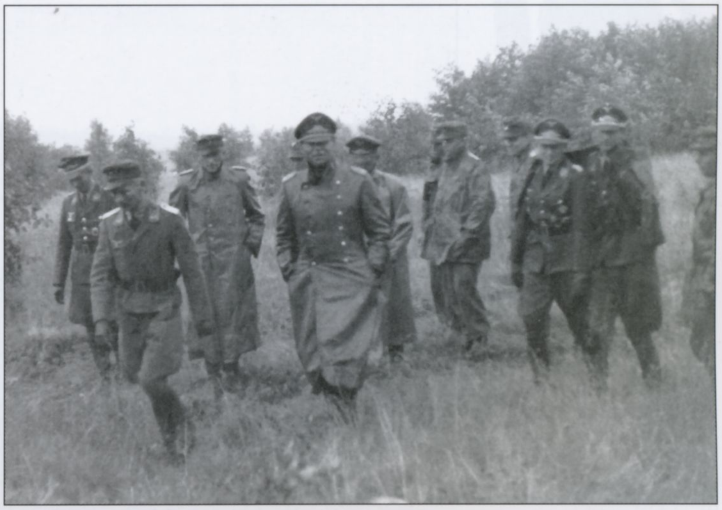
A Herman Göring Division 3.7cm Flak 18/36 towed by a Magirus truck. White balls on poles on front fenders allowed the truck driver to see the limits of his vehicle. By 1944 the Army had stripped most field divisions of their vehicles leaving Göring as the only really mechanized "Luftwaffe" unit.



The division in 1944, probably in the USSR. Visible is the usual mix of uniforms from great coats to reversible winter smocks. Truck cab shows distinctive Skoda silhouette. Built-up structure on truck bed was likely a mobile workshop for any number of functions.



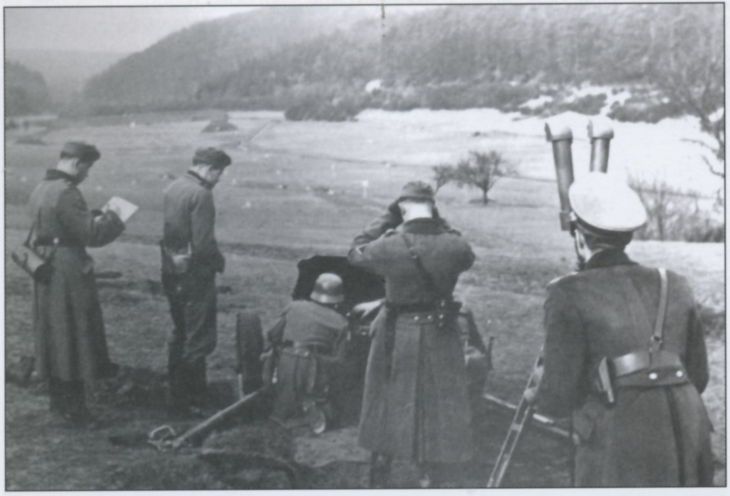
"Hande hoch!" *Obergefreiter* (senior corporal) armed with Luger P08 playing around with armored vehicle crewman. Vehicle hatch appears to be unique type common to Panzer IV family. As its fortunes in war vacillated the unit's effective strength ranged between a full division and a reinforced regiment.



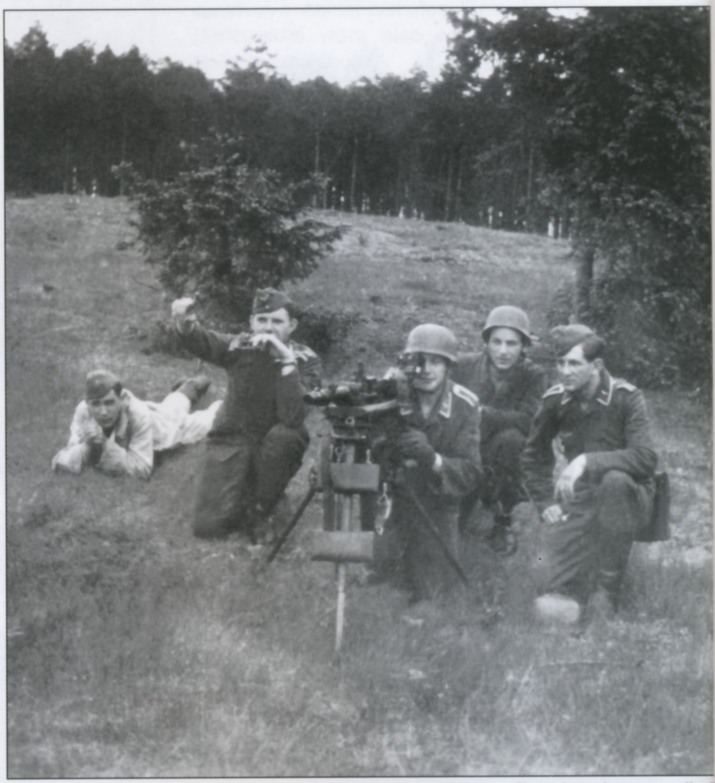
A lieutenant in his *Fliegerbluse* leads a group of officers through an clearing in some woods. Those in his audience wear a wide array of uniforms: *Tuchrock* (left, second and third from right), great coats and camouflage smocks plus *Schirmmütze* and *Einheitsmütze*.

Field Divisions

Like fish out of water Luftwaffe aircraft mechanics, cooks, etc. try learn the infantry's individual movement techniques. These Field Division troops are all wearing *Feldmütze* plus a mix of great coats and winter coveralls.

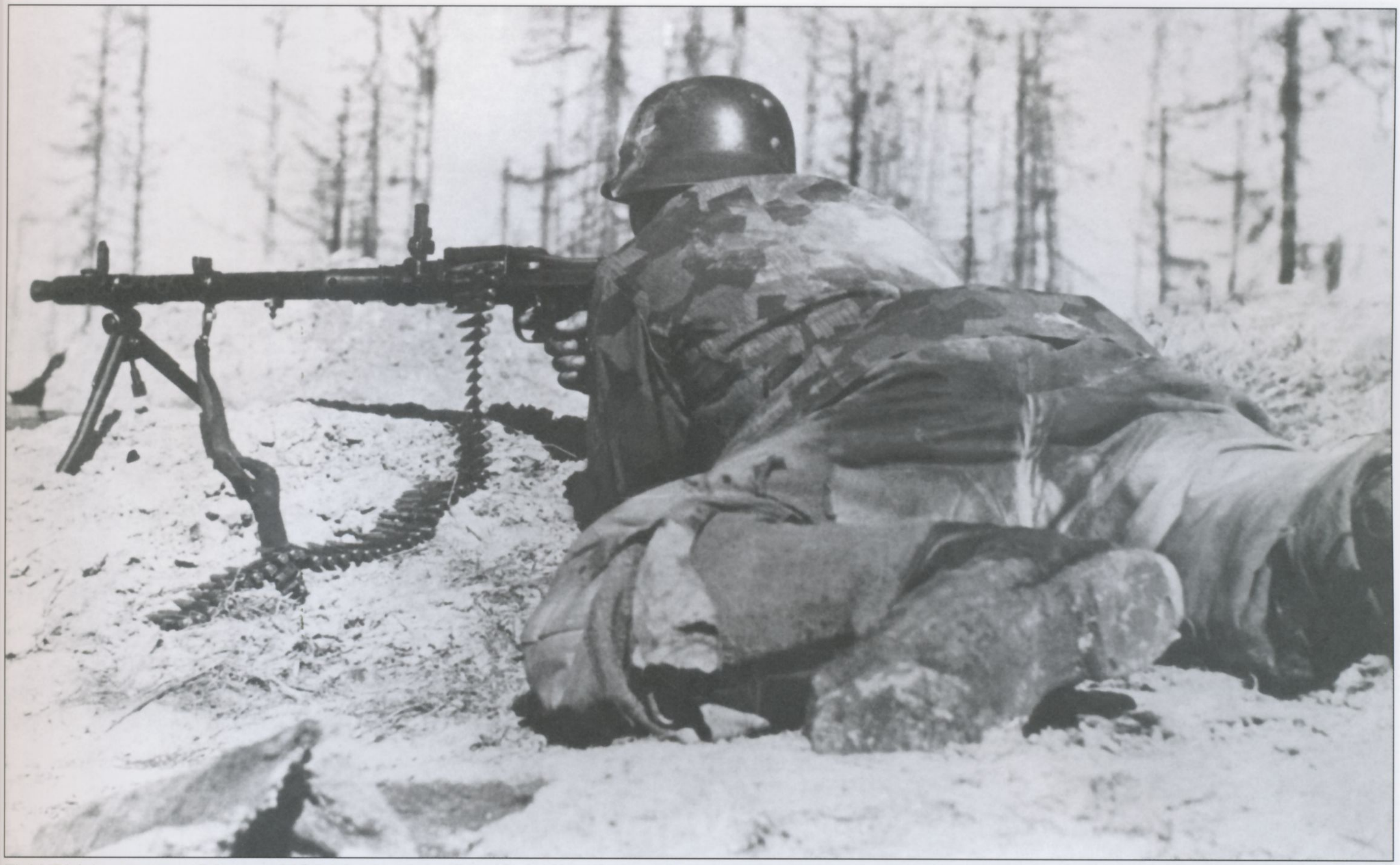


Training on the 3.7cm Pak 35/36, an officer wearing holstered Walther P.38 at scissors binoculars and *Gefreiter* standing at center watch for fall of the round while man on left takes notes. The 3.7cm Pak had already been proven to be almost useless by 1942-43 so the Field Divisions' woes were compounded by poor equipment such as this.

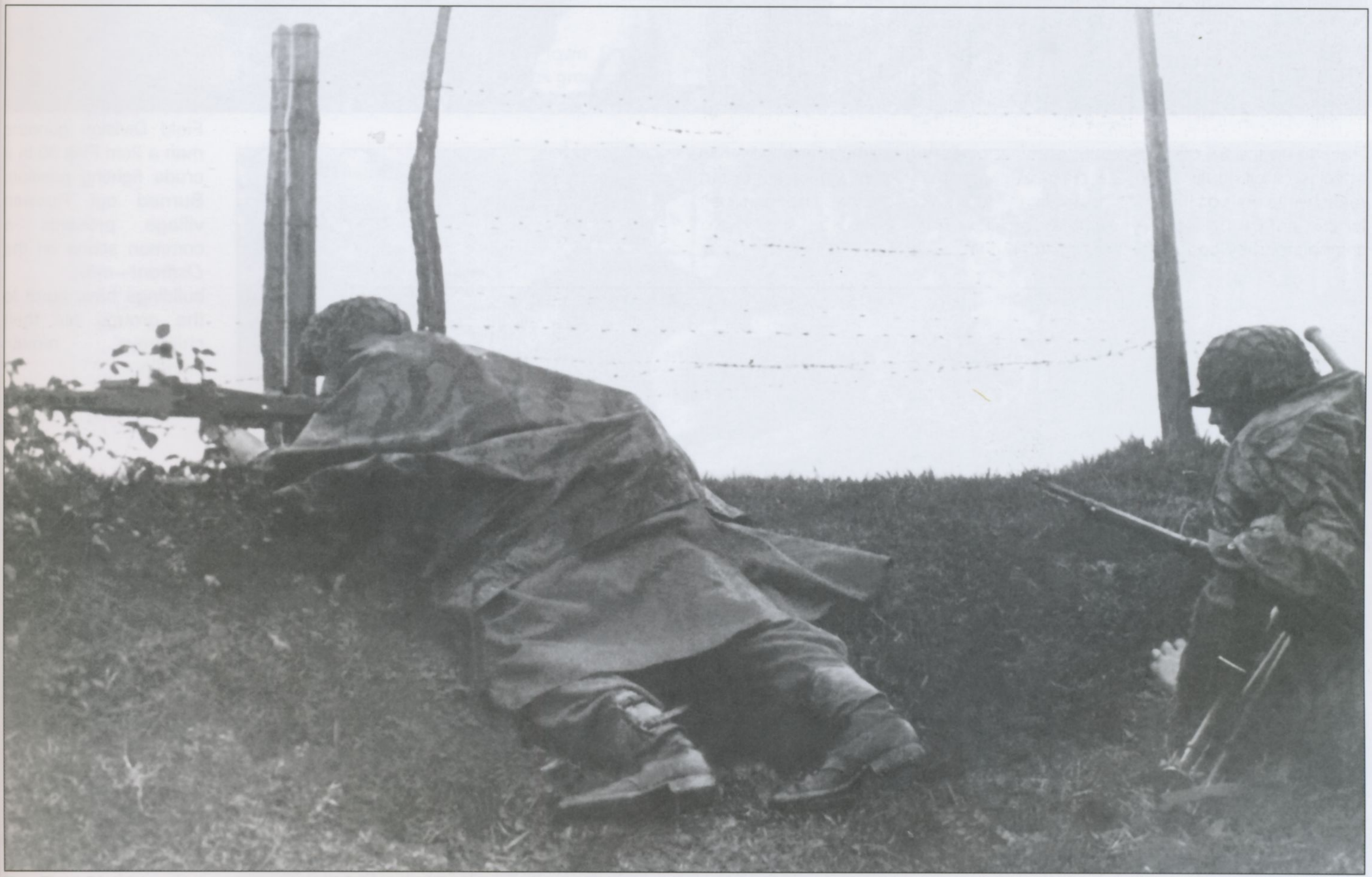


A pair of *Feldwebel* and a *Jäger* (as the most junior enlisted rank was called receive training on a MG34 in its tripod-mounted heavy mode in 1942. Mar on left in prone position wearing *Drillichanzug* is probably simulating rifleman protecting the machine gun position.

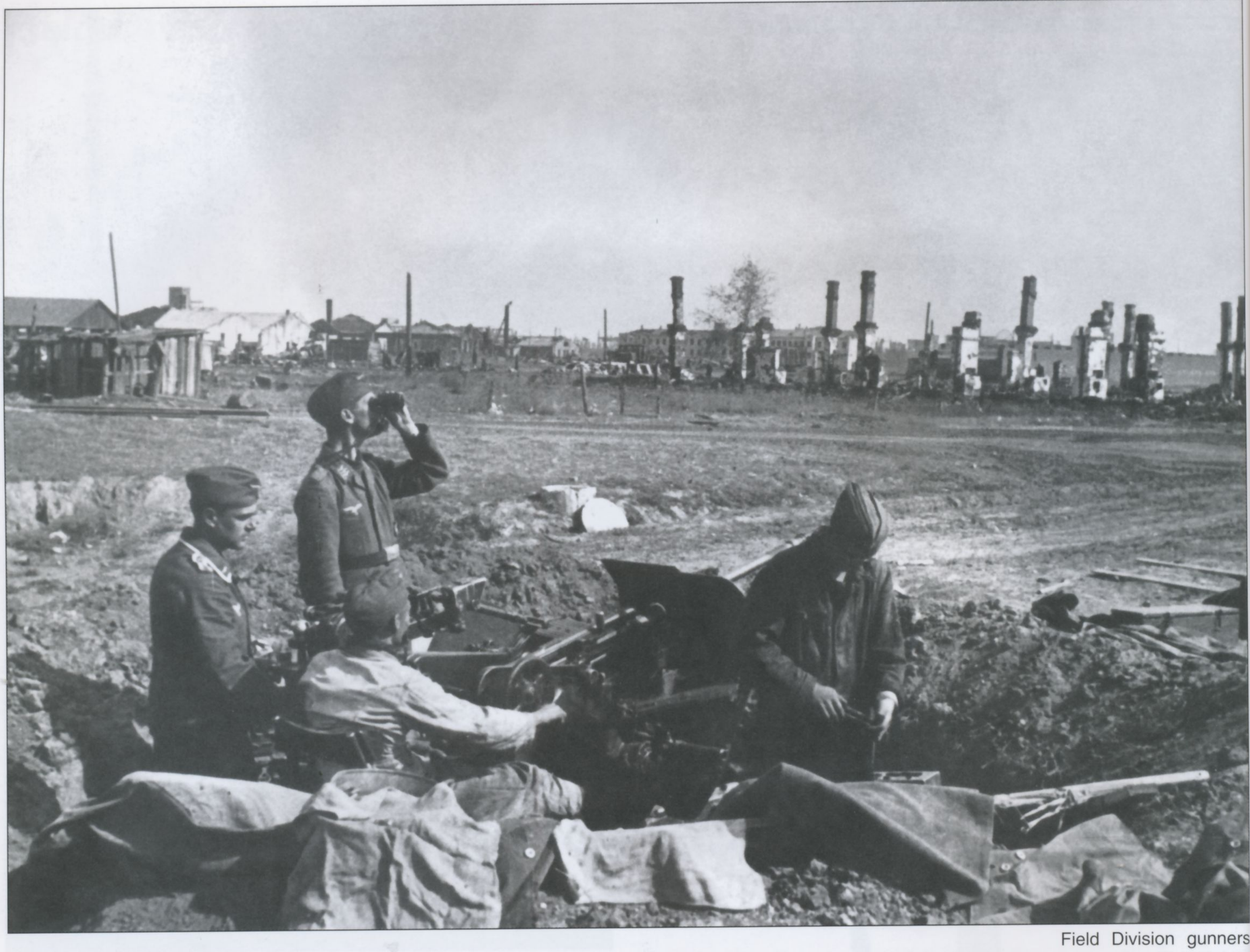
The classic photograph of the German fighting man in Russia. He wears a white-washed helmet and unadorned great coat and is ready to take up his Kar 98 rifle. Actually by necessity the Luftwaffe became involved in ground combat from the earliest days of Barbarossa, anti-partisan operations were a constant feature of the Nazi-Soviet War. *Alarmeinheiten* (emergency units) guarded airfields, convoys, etc.



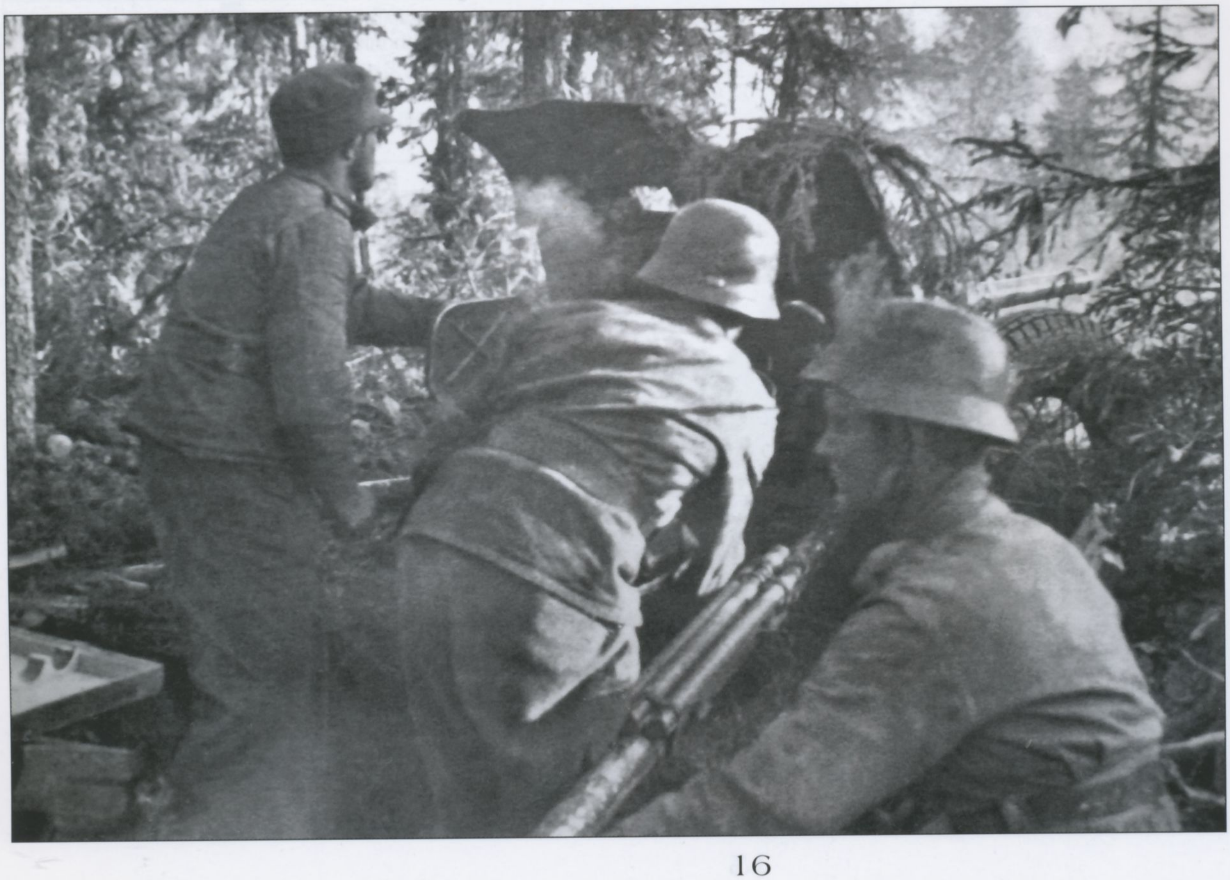
Field Division trooper firing an MG34 in the light (bipod) mode. He wears the reversible winter smock with the camouflage splinter pattern out. Göring's originally asked for men with "strong hearts" to volunteer "without hesitation."



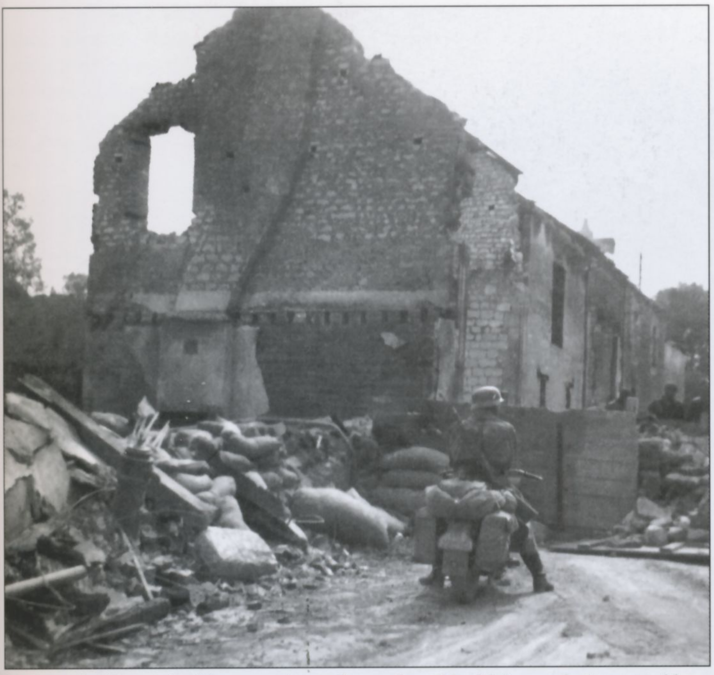
Two Field Division troopers, one with MG34 (left). Both wear camouflage netting on their helmets (used from late 1942 onwards). Machine gunner is wearing a camouflage smock over his great coat and dark blue gaiters.



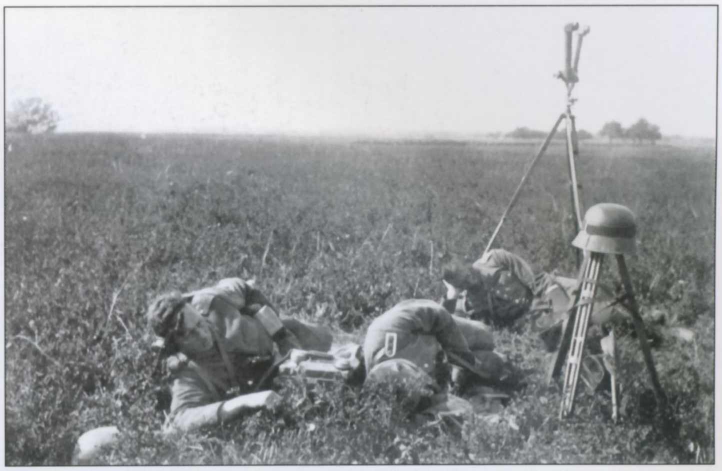
Field Division gunners man a 2cm Flak 30 in a crude fighting position. Burned out Russian village presents a common scene on the *Ostfront*—most buildings have burnt to the ground but their chimneys remain standing.



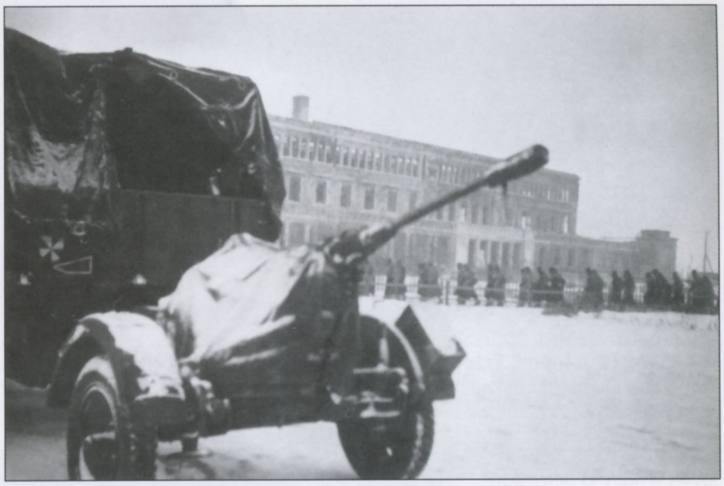
A 3.7cm Pak 35/36 in action. Crewmen wear unadorned *Fliegerbluse* plus combination of helmets and *Einheitsfeldmütze*. In Göring's call for volunteers he said those who were courageous in combat would receive "special consideration for promotion and decorations."



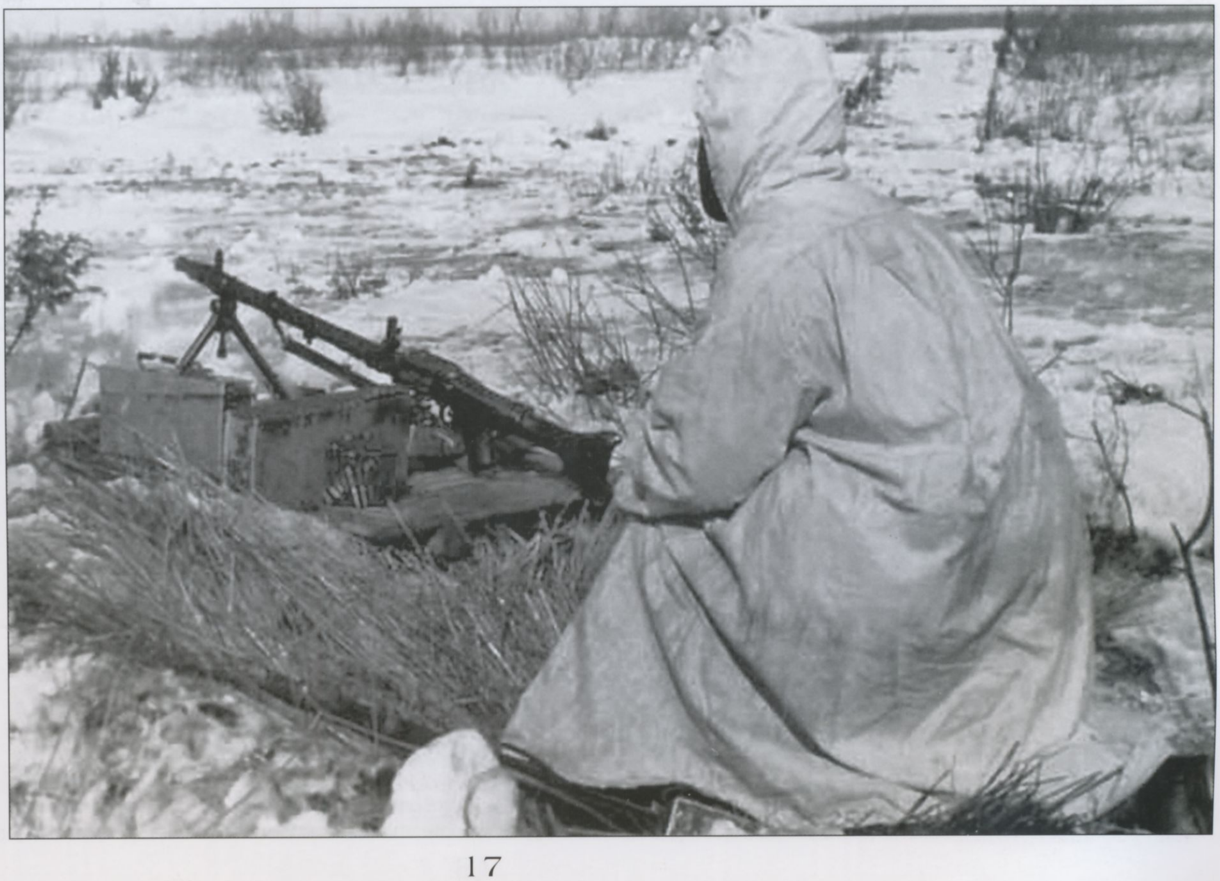
Motorcycle dispatch rider wearing all-weather *Kraftfahrerschutzmantel* in a French or Italian town. These men provided an invaluable command and control function when radios or field telephones didn't work.



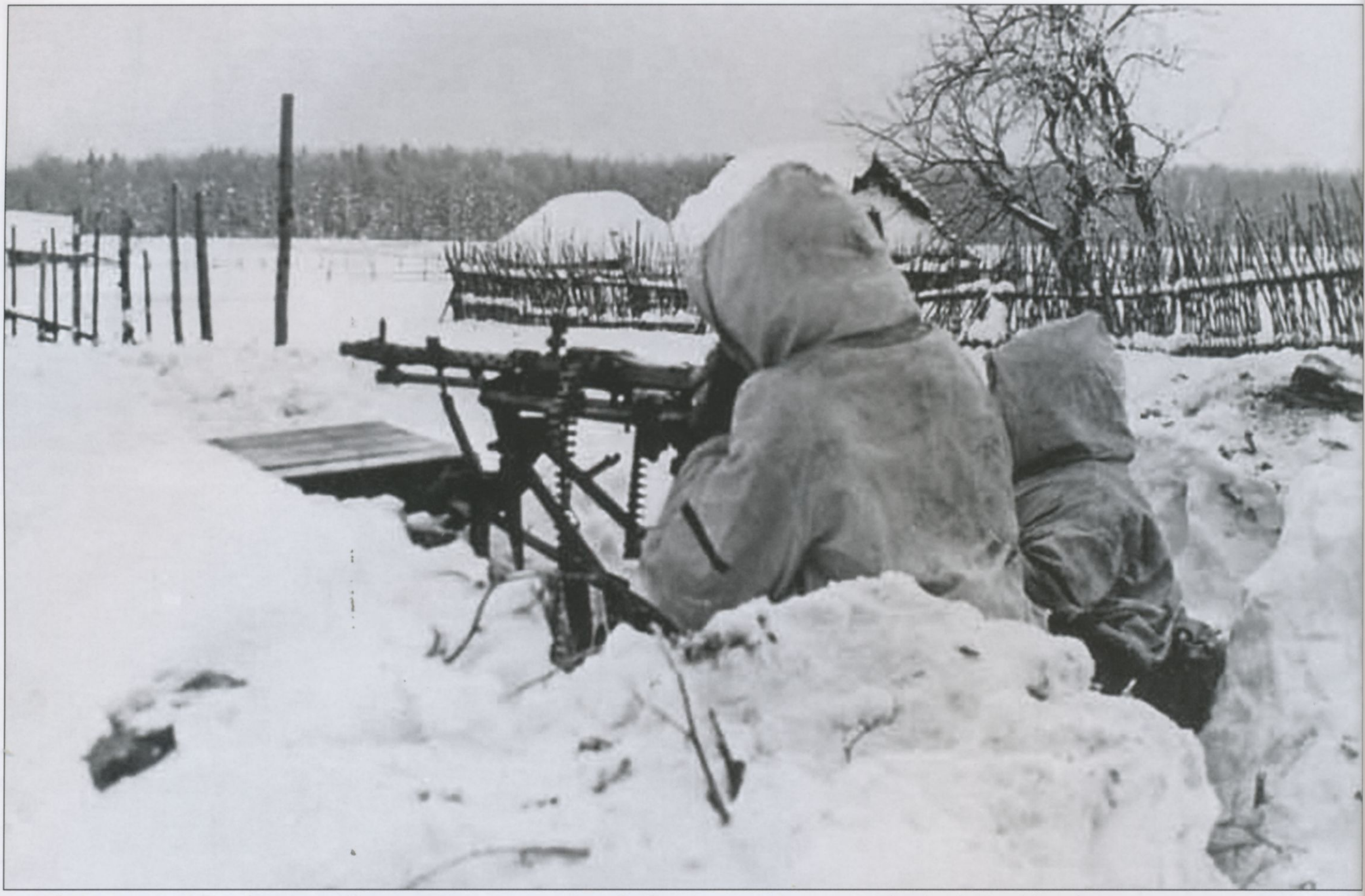
Two *Feldwebel* and an *Obergefreiter* (left) of a Field Division's forward observer section. Tools of their trade include *Scherenfernrohr* on tripod plus field telephone. Judging by the fact these men are napping without any form of cover or concealment indicates they are training far from the fighting, probably in Germany.



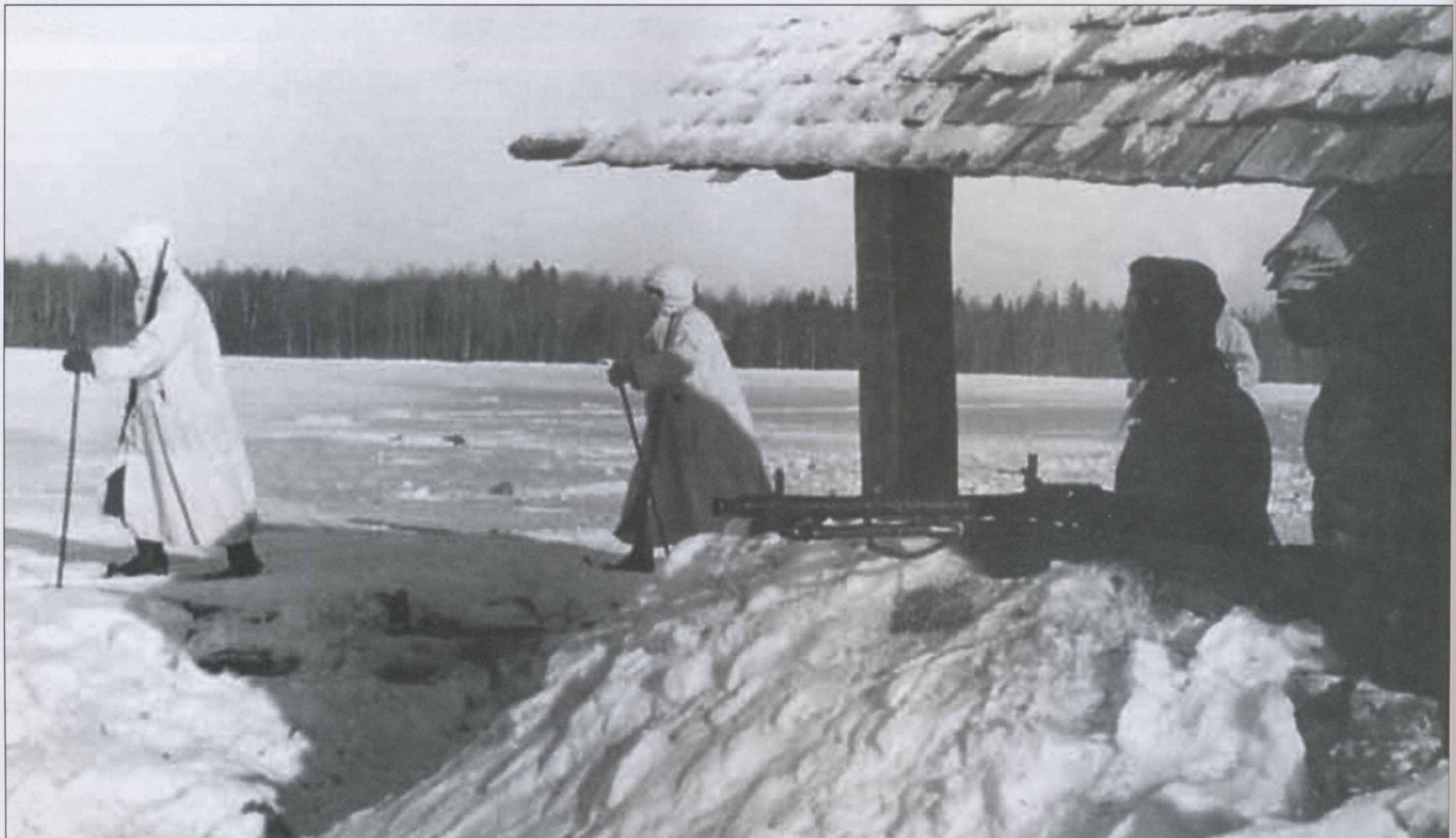
A Flak 30 on its trailer in the square of a burned out Soviet town. Soldiers march past the hollowed out shell of a large building in the back ground. Even the Romanians were often scornful of the Field Divisions' fighting abilities.



Ubiquitous MG34 on its bipod in a frozen marsh that could be found in just about any part of the USSR where Nazis and Soviets fought. Crewman keeping watch in winter overgarment (*Schneehemde*) has bed of straw ready for when he has to hit the ground and go into action.

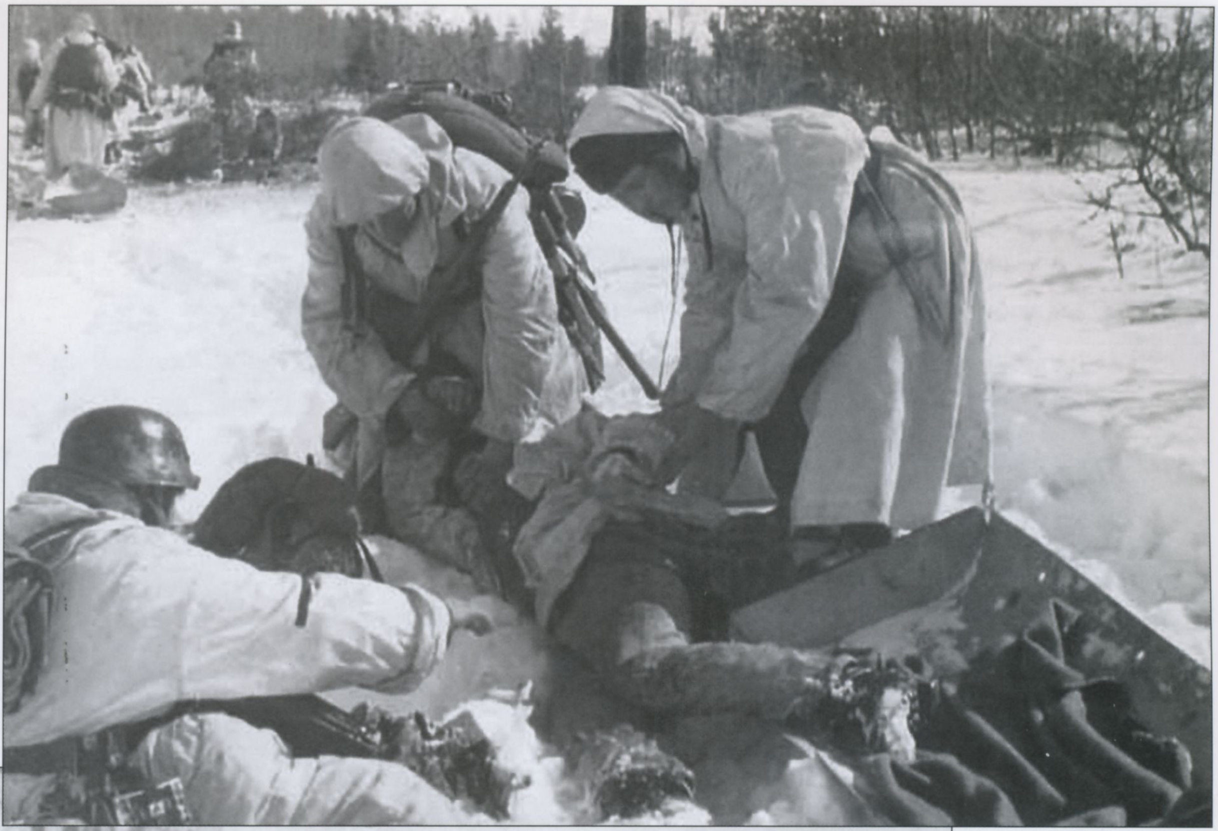


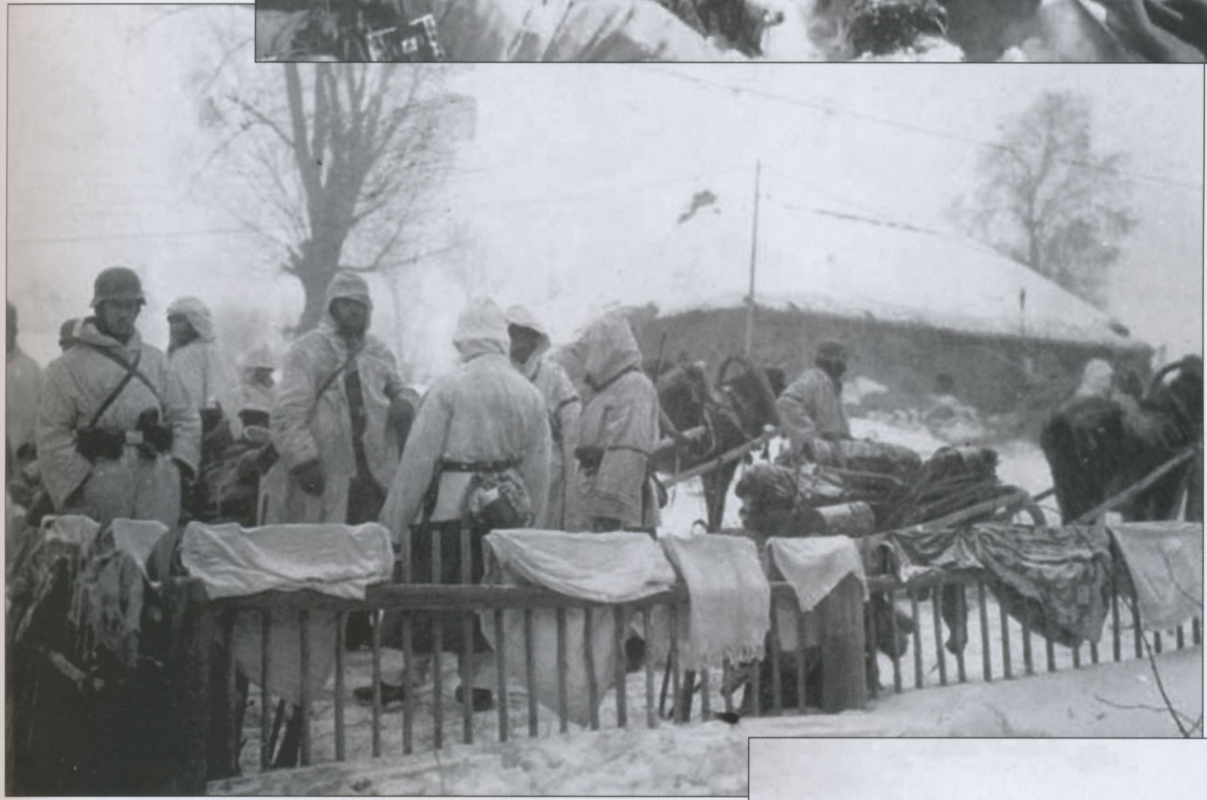
An MG34 on a tripod. This fighting position in a village on the edge of a Russian wood has good defensive fields of fire. Crewmen wear reversible smocks with winter white side out. Dark colored stripes on upper sleeves are colored recognition devises that changed frequently according to a unit's security instructions.



Somewhere in the USSR a ski patrol in winter over-garments moves out. The *Schneehemde*n were loose enough to allow free movement and lots o equipment underneath. Comrades left behind man an MG34, while they have some shelter from the elements they have no winter camouflage.

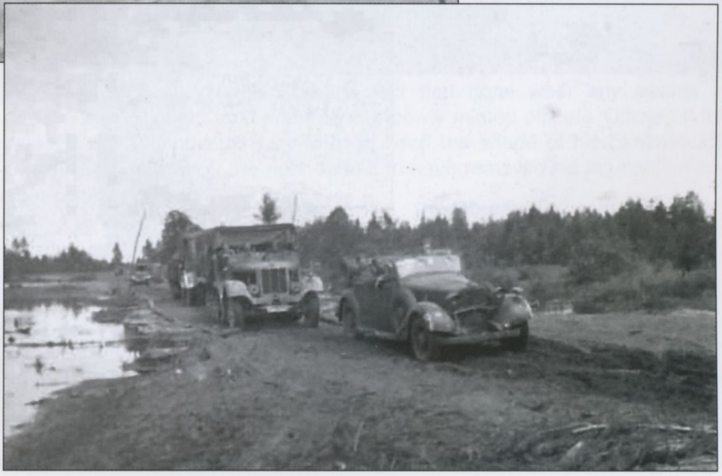
Men returning from patrol (notice loaded back packs) tend to a wounded comrade they have brought back on the sled to the right. Colored sleeve recognition stripe is clearly seen on man of left.



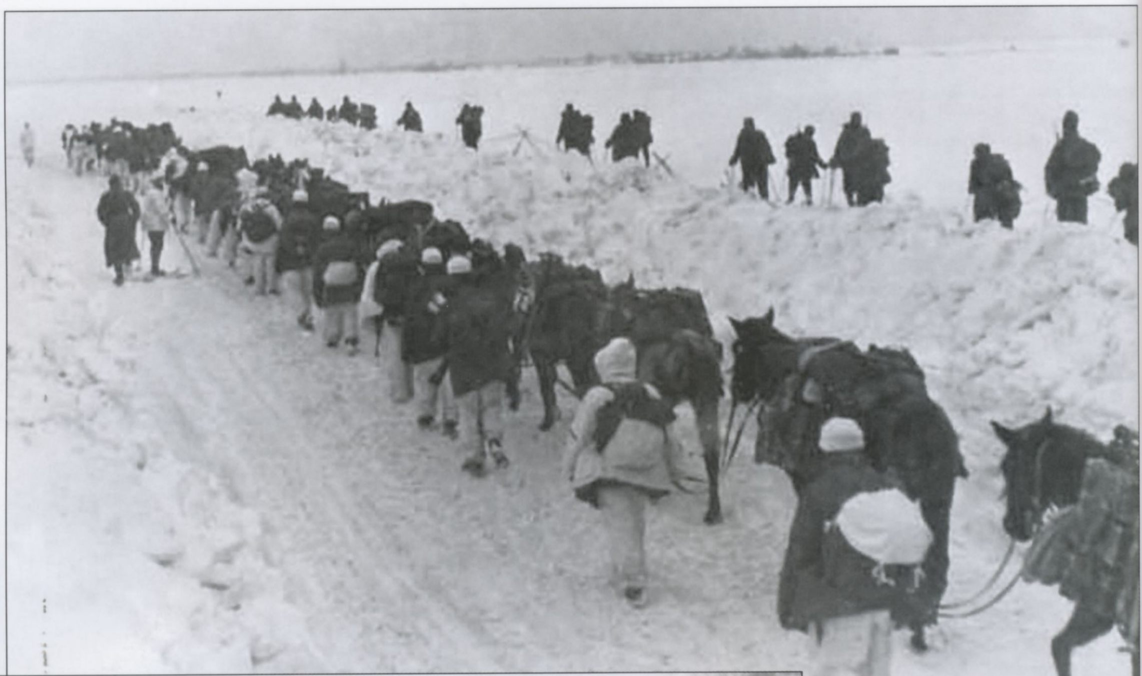


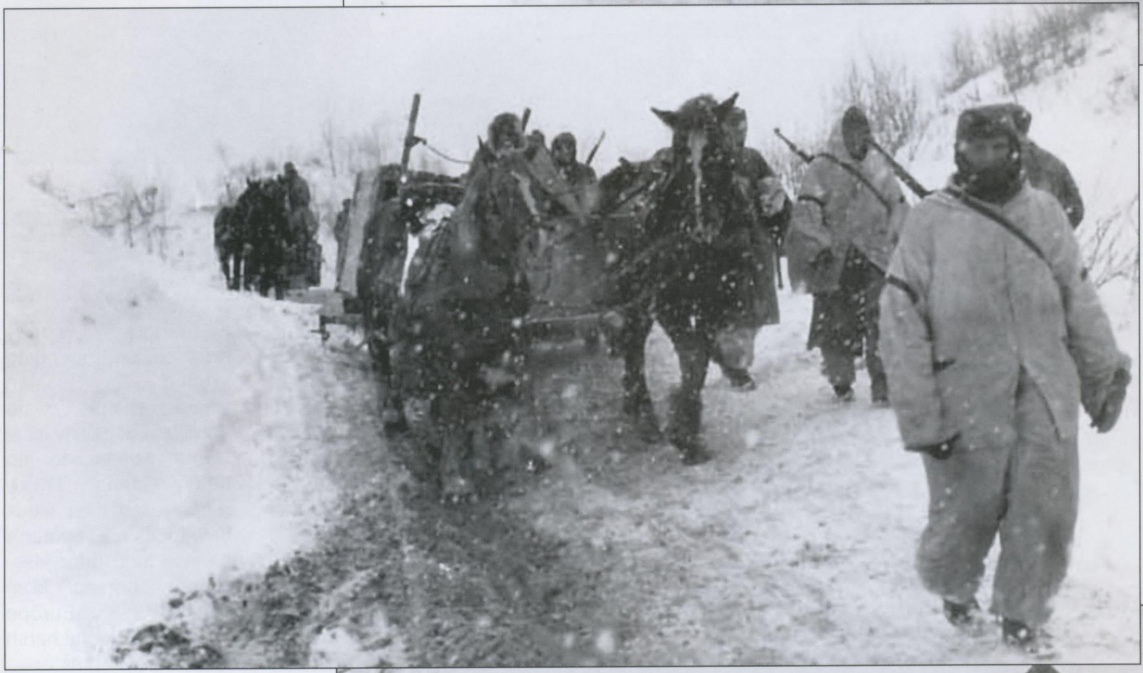
Seemingly warmly dressed unit standing around a Russian village. It has made good use of hearty local *Panje* horses to do heavy lifting. These horses and their sleds or wagons did yeomen's service long after less-rugged horses from western Europe succumbed to the harsh Russian elements.

Convoy negotiates typically abominable road through the Russian country side. At right are beginnings of a *Knuppeldamm* (corduroy road—small trees laid sideways) that was common in muddy areas. Prime mover is large Sd.Kfz 8, capable of towing heavy weapons with its crew and their equipment plus the gun's ammunition. Civilian automobiles were completely unsuited for this sort of off-road driving but the Germans had too few tactical vehicles.

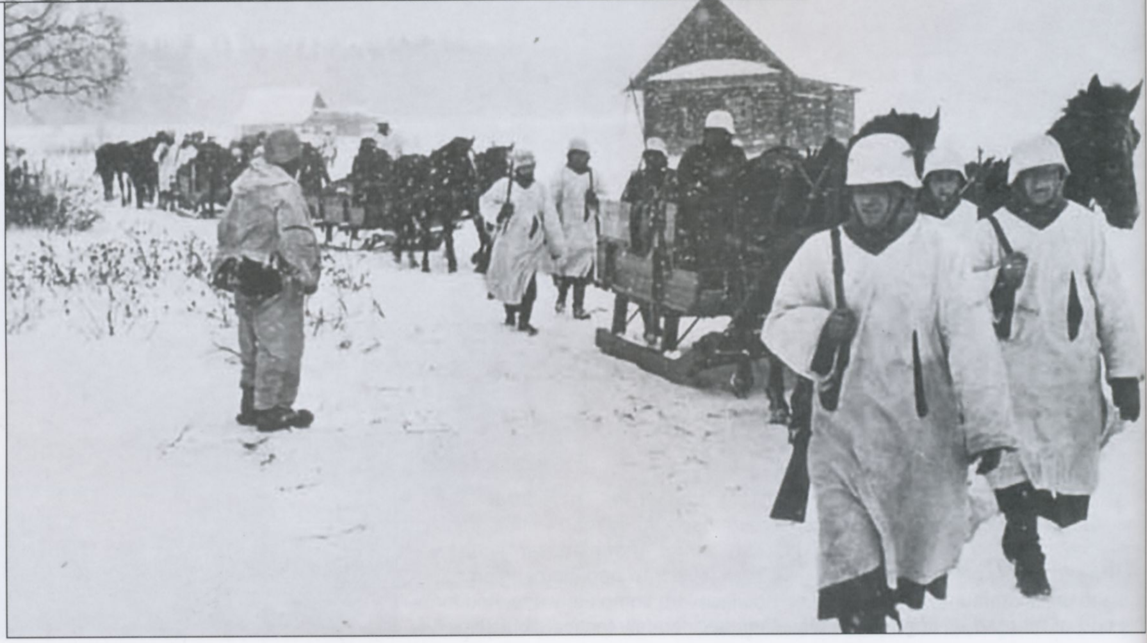


Two columns trudge across the remorseless snow-covered Russian countryside. To the right are men on skis but without any winter camouflage. Men in logistics column made up of *Panje* horses in foreground wear reversible camouflage smocks and trousers often in combination with their normal uniform coats or trousers.

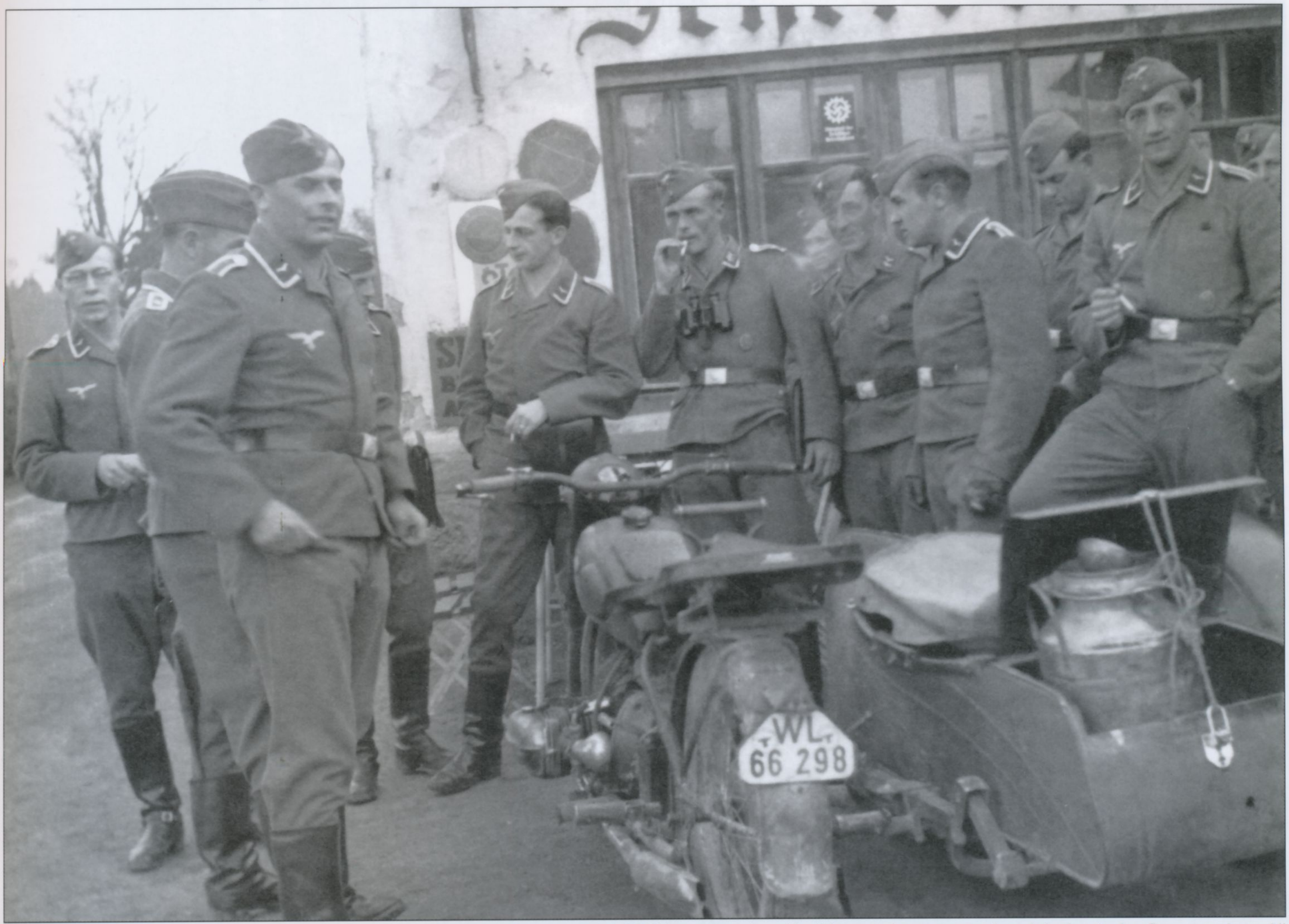




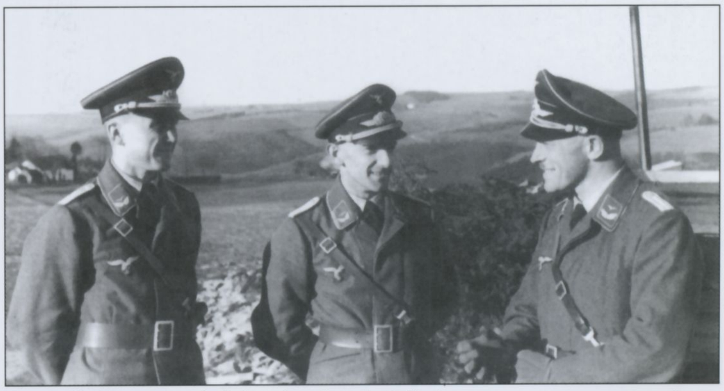
Weather not fit for man nor beast, winter 1942-43. As cold as this scene looks these men are very well equipped for the cold compared to the *Ostheer* of a year earlier. As the snow falls a small logistics element makes its way across the Russian vastness.



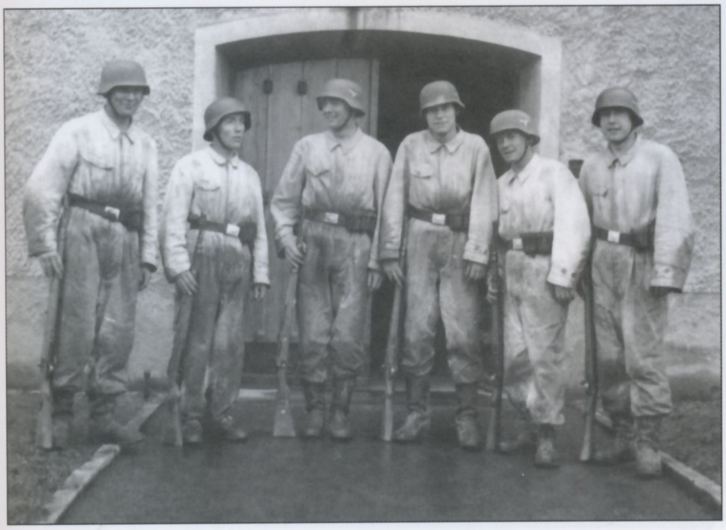
Yet another horse-drawn logistics column in the Russian winter. Most men wear white winter over garment while man on left wears reversible smock and trousers. Despite myth of mechanized blitzkrieging Wehrmacht the great mass of the German military marched on foot and moved no faster than a walking horse.



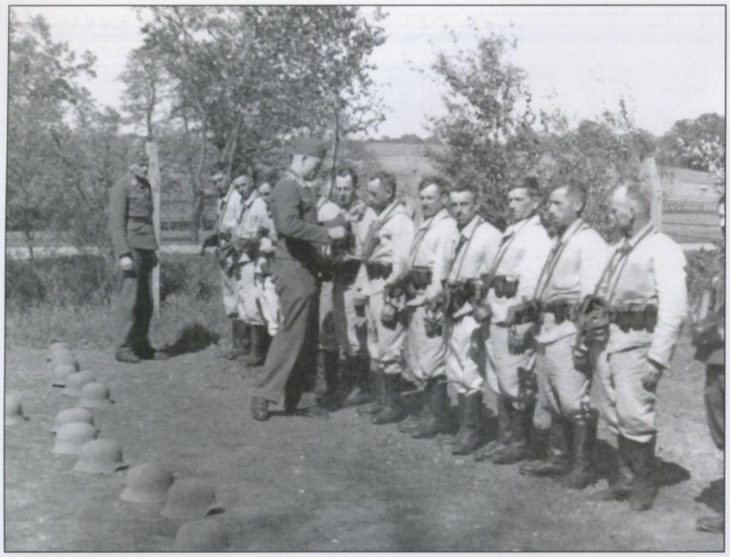
A group of *Feldwebel* (with one airman, fourth from left) standing around a BMW motorcycle with sidecar take a smoke break in front of a German shop. All wear *Fledmütze* and *Fliegerbluse*. As if to underscore Göring's assertion that his men were good National Socialists many wear the SA *Sportsabzeiche* on their jackets' left.



Three lieutenants. Judging by the fact that none wear any awards or decorations on their uniforms they are newly minted officers. Officer on left clearly has retained the wire form to keep the shape of his *Schirmmütze* while his comrade on the right seems to have removed his in unauthorized but common fashion.

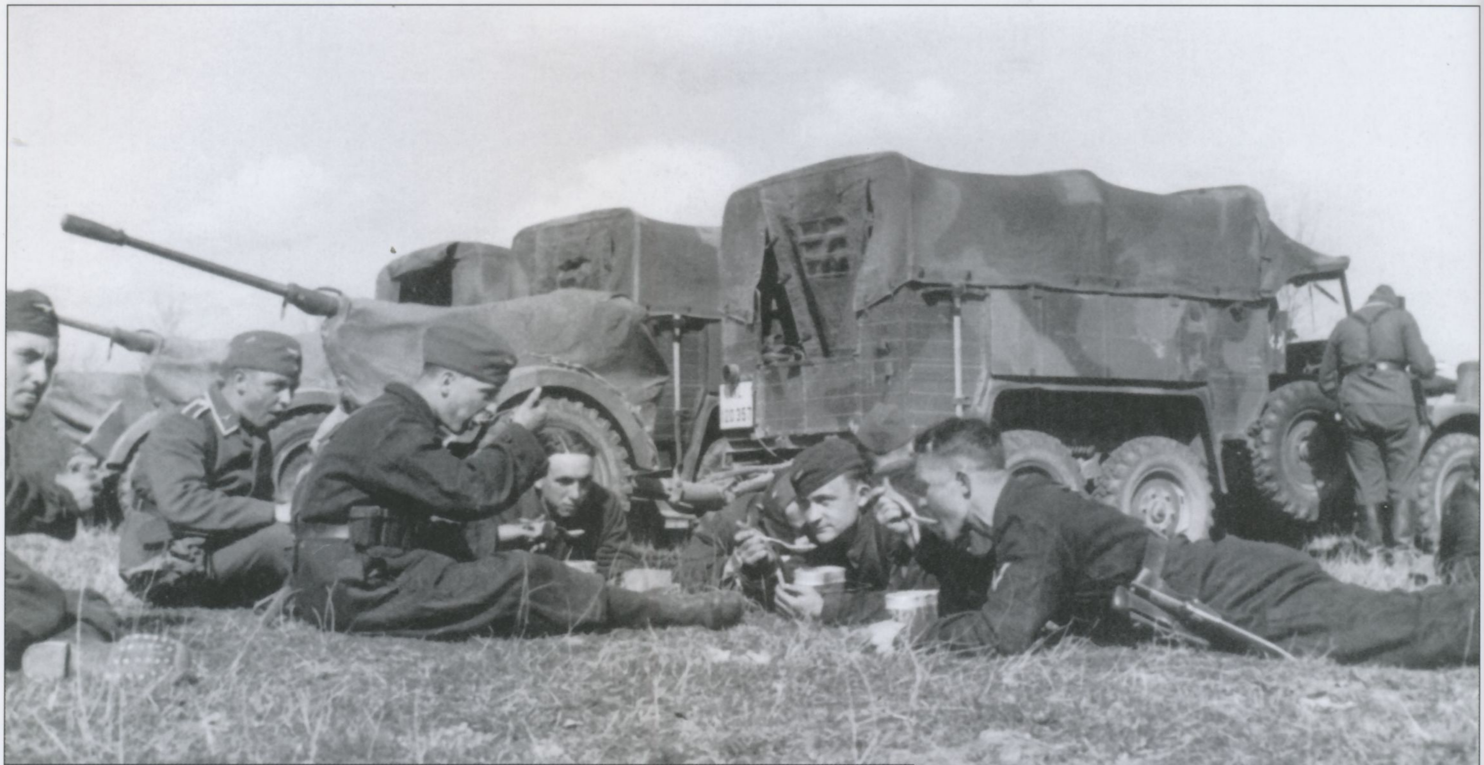


A smiling group of Field Division troops in front of a *Kaserne* door. They wear light-colored coveralls and enlisted men's belt buckles. All carry a Kar 98 rifle with standard pebbled leather three-compartment cartridge pouches on their belts.



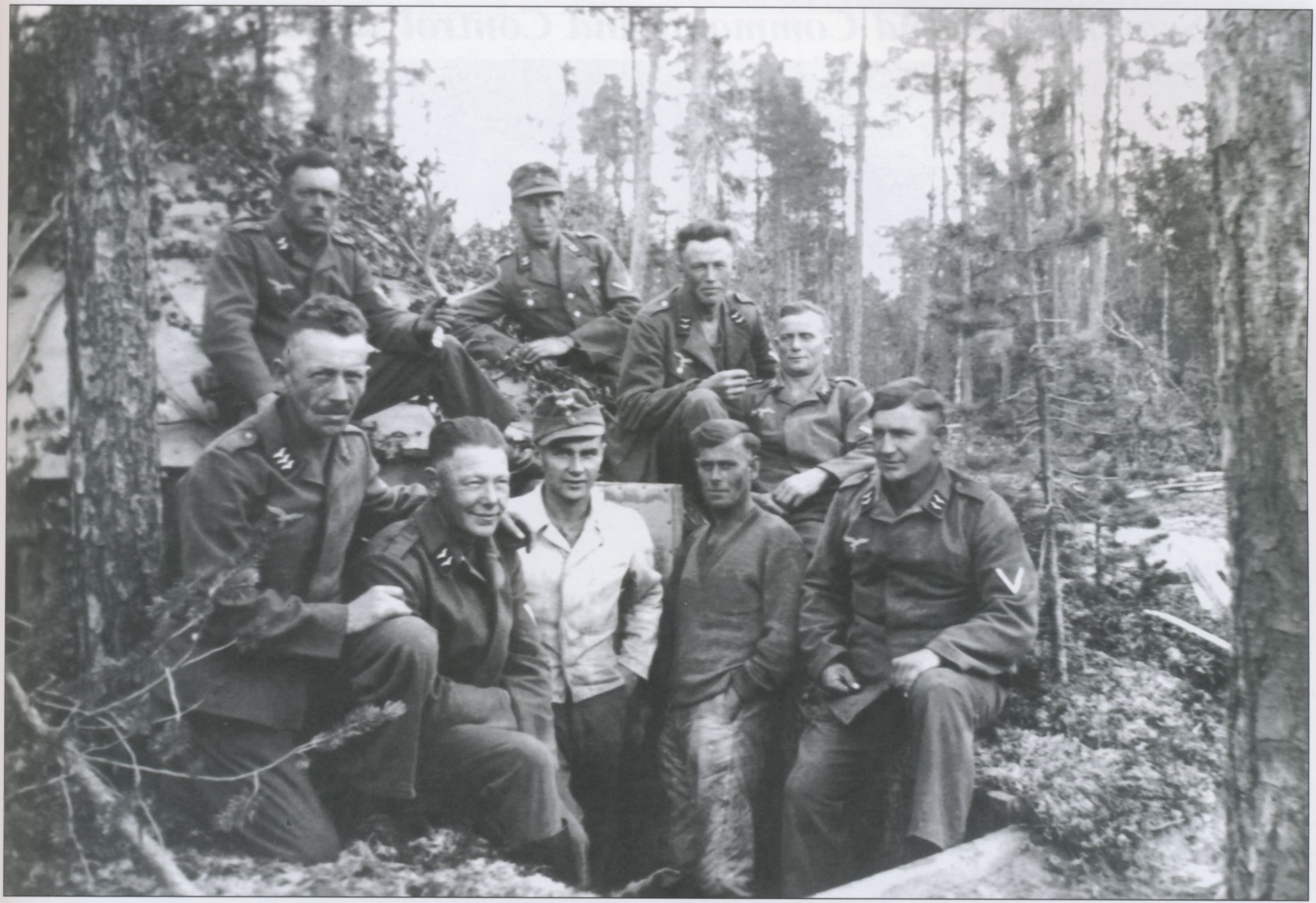
A group of Hermann Göring Division troops in their *Drillichanzug* inspected by a *Feldwebel* (with unbloused trousers). It appears the men have just completed training with their protective masks as the masks are out of their storage canisters.

Snow-dusted members of the Hermann Göring Division, probably in Russia during the winter of 1943-44. Uneven fighting qualities of Luftwaffe men meant their units were often more of a burden to the Army that even those of Germany's less-martial allies.



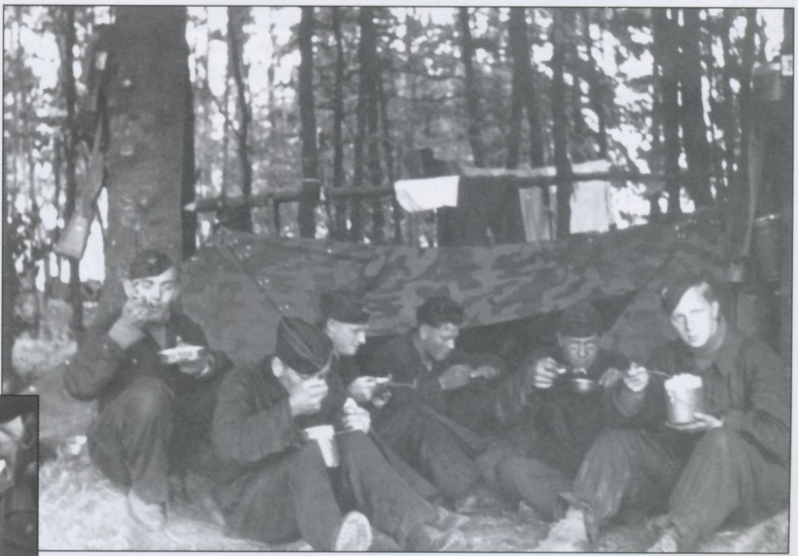
Feldwebel on left (notice silver collar *Tresse*) and Flak 30 crewmen in black coveralls eat lunch from their M31 mess kits. *Gefreiter* on right wears bayonet on his belt. Guns are towed by Krupp L3H43 Schnautzer trucks.

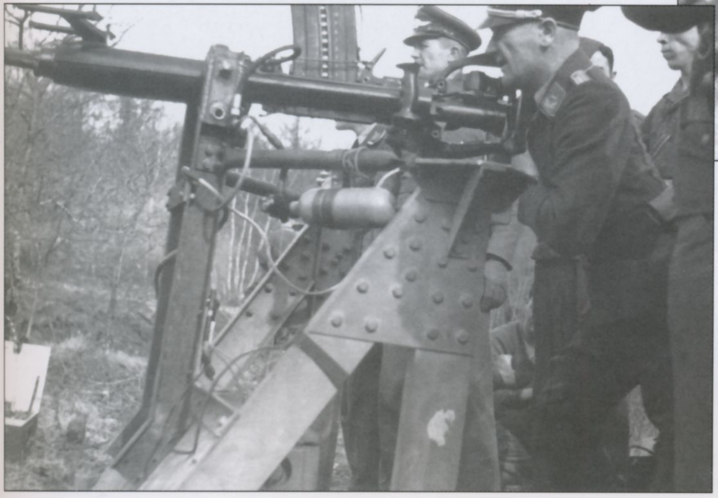
Informal photograph of airmen with their officer (center, in *Feldmütze* officers double-clawed belt buckle) and *Feldwebel* (on officer's left, with collar *Tresse*).



Group of junior enlisted men in all manner of uniforms. Seen here are *Tuchrock*, *Fliegerbluse* and even what appears to be a jacket that perhaps used to be part a tropical uniform—possibly from North Africa, Italy or Greece (center). These men look a bit older than usual; by 1944 the average age of men in some Field Divisions was 30 years.

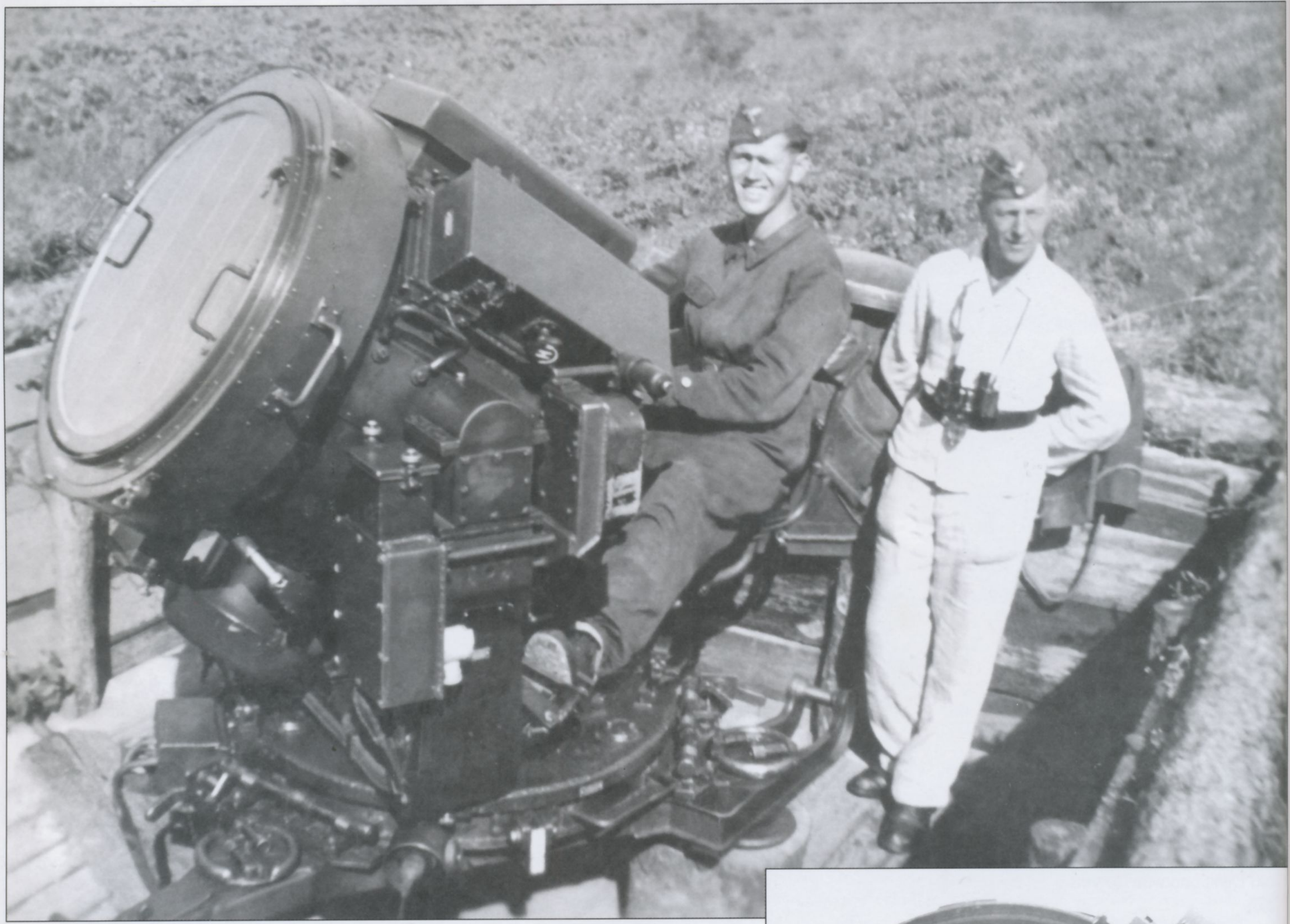
Lunch time. Men in black coveralls eat from their *Kochgeschirr* (mess kit) 31. Behind them they've put together numerous *Zeltbahn* (shelter quarters) to form a large sleeping shelter.



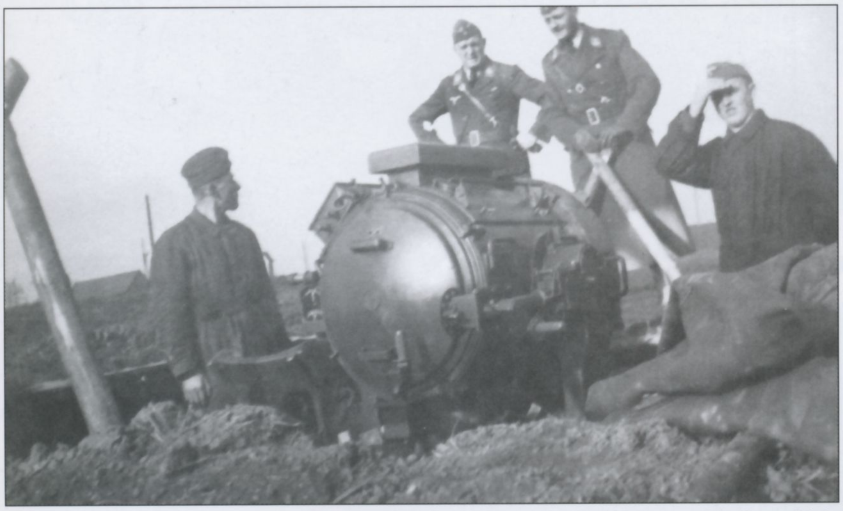


A lieutenant (center), a *Feldwebel* (left) and others operate an unidentified weapon. Notice chin strap on officer's *Schirmmütze* is silver while that of NCO is black leather. Luftwaffe Field Divisions were often very hastily formed so completely lacked much uniformity in equipment, uniforms, etc.

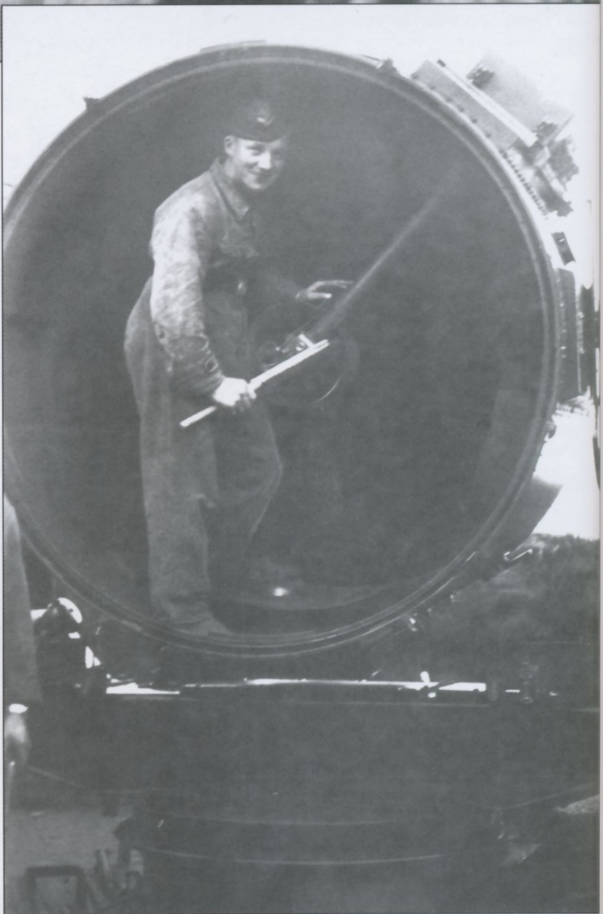
Flak Searchlights and Command and Control



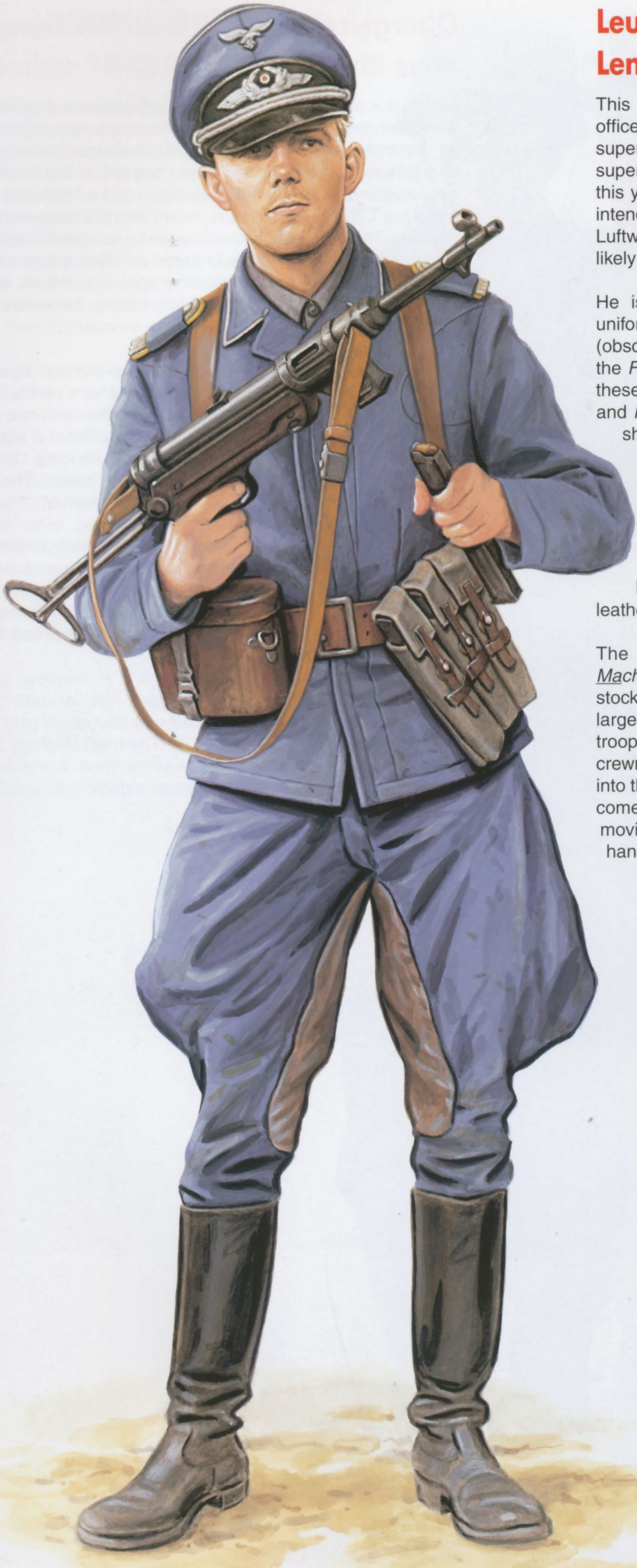
Crew of 60cm searchlight used with medium and light flak. One man wears blue-gray twill coveralls while other is in *Drillichanzug.* In good weather the 135 million candlepower light could throw a beam 5,000 feet vertically.



Two officers inspect dug-in 60cm (24 inch) searchlight and crew. Not counting the vehicle driver this light had a crew of four and was powered by an 8kw generator.



Performing maintenance on 150cm (60 inch) searchlight used with heavy flak. The size measurement refers to that of the parabolic glass reflector. An eight cylinder, 51 horsepower generator created 24kw to power the 990 million candlepower light.

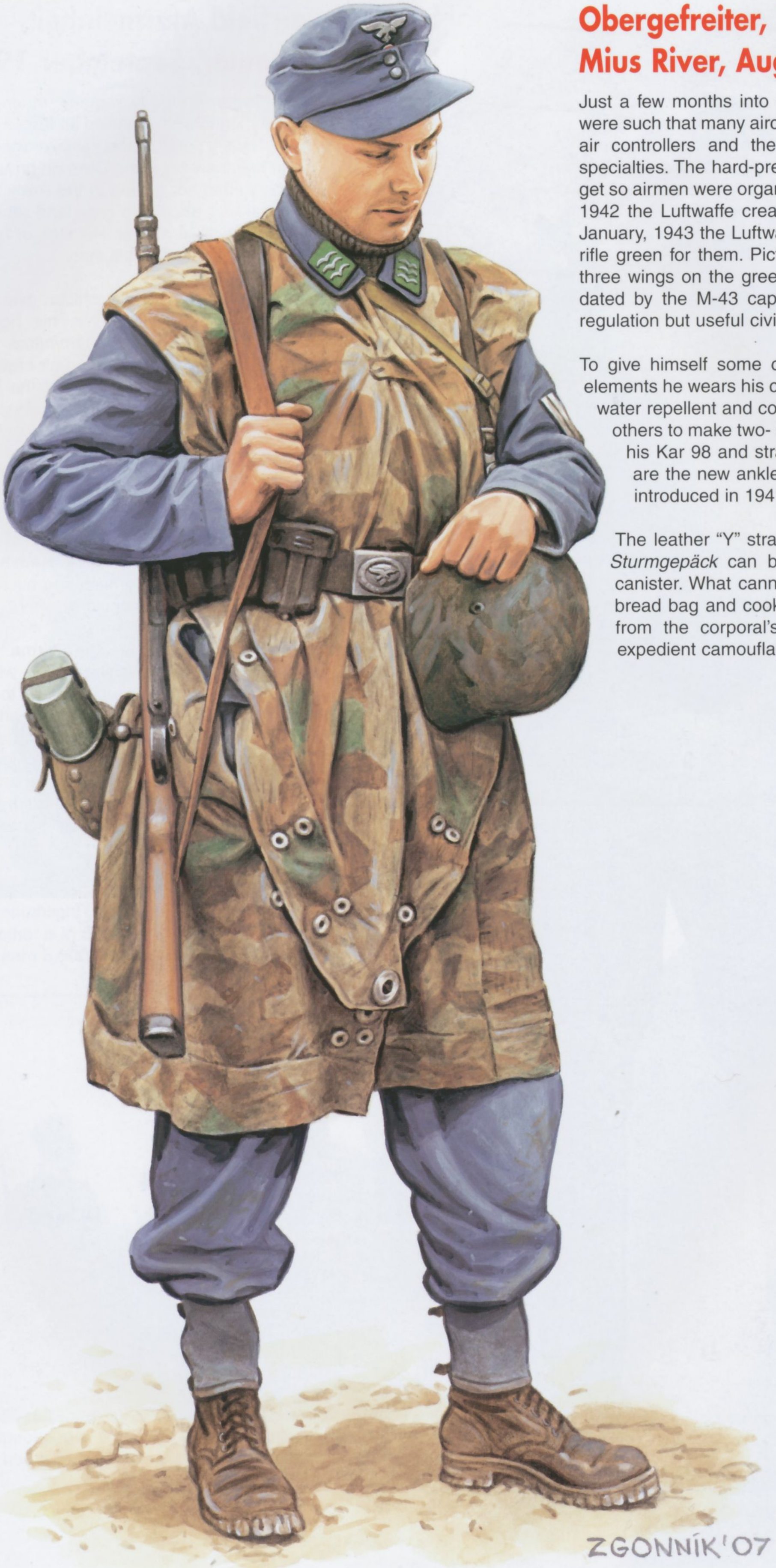


Leutnant, airfield Alarmeinheit, Leningrad theater, September 1941

This *Leutnant der Fliegertruppe*, like many other Luftwaffe officers, was essentially "unhorsed" as Allied air forces gained air superiority in every theater of Europe. Unlike many of his superiors who began their careers in the German ground forces, this young man probably had not served in the Army and never intended to. Now with fewer aircraft to crew and maintain, the Luftwaffe has him fighting like a soldier. His lack of experience likely proved deadly to himself and to his men.

He is easily identified as a Luftwaffe officer: his blue-gray uniform, the aluminum Luftwaffe eagle on his right breast (obscured) and the cap devices on his *Schirmmütze*. He wears the *Fliegerbluse,* possibly from his days as an air crewman (but these grew popular with non-flying elements of the Luftwaffe) and *Reiterhosen* with leather inseams. Rank is indicated by the shoulder boards, in this case silver under laid with the yellow *Waffenfarbe* of the flying service. Since he's now in combat he has slip-on covers concealing most of the bright shoulder boards. Nevertheless his visor cap still has silver devices and aluminum chin cords and piping (like that on his collar). He also wears the officer's brown belt with two-pronged buckle and matching leather harness. Hung on his belt are canvas ammunition pouches and a leather case for the standard 6x30 binoculars.

The lieutenant's only weapon is the Erma (*Erfurter Machinenfabrik*) MP 38/40 9mm machine pistol, with folding stock extended. The machine pistol was developed to put out a large volume of pistol shells, and was designed primarily for troops expected to fight in cramped spaces such as panzer crewmen and paratroops. However, the MP 38/40 found its way into the hands of soldier everywhere, especially leaders, and has come to represent the Wehrmacht in poplar culture such as movies and television. The magazine in this lieutenant's left hand holds 32 rounds.



Obergefreiter, 15th Field Division, Mius River, August 1943

Just a few months into Operation Barbarossa Luftwaffe losses were such that many aircraft crewmen, mechanics, signal troops, air controllers and the like could no longer serve in their specialties. The hard-pressed army needed all the help it could get so airmen were organized into fighting in *ad hoc* units. By late 1942 the Luftwaffe created its own Field Divisions and on 4th January, 1943 the Luftwaffe authorized a unique *Waffenfarbe* of rifle green for them. Pictured here is an *Obergefreiter* showing three wings on the green *Kragenspiegel*. His uniform is further dated by the M-43 cap. For added warmth he wears a non-regulation but useful civilian turtleneck sweater.

To give himself some camouflage and protection against the elements he wears his cotton drill *Zeltbahn* as a parka. This was water repellent and could be joined together with one or three others to make two- and four-man tents. Over his shoulder is his Kar 98 and strap of his gasmask canister. On his feet are the new ankle boots and canvas gaiters. These were introduced in 1941 as a way to save leather.

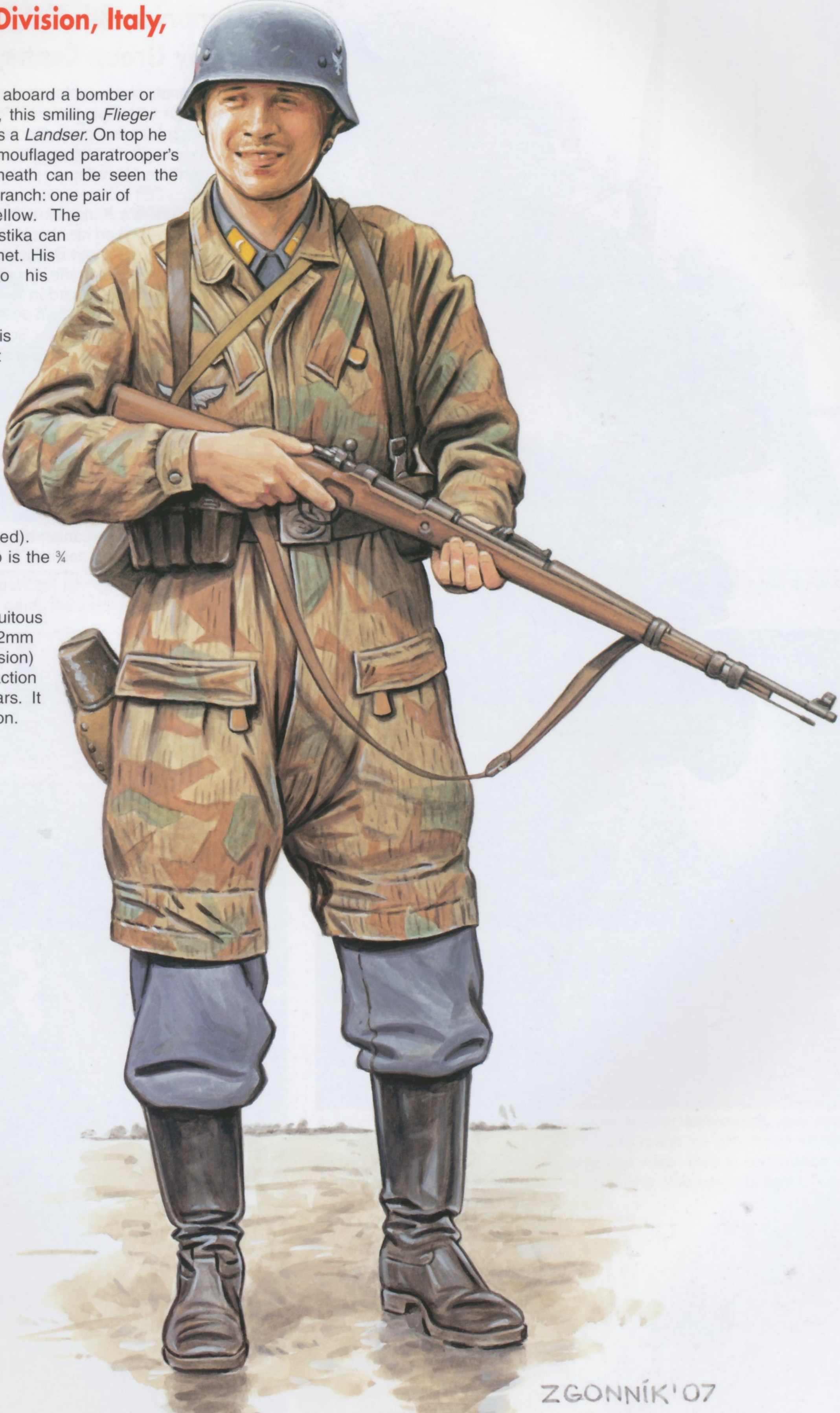
The leather "Y" straps, ammo pouches and canteen of his *Sturmgepäck* can be seen, as is the strap of his mask canister. What cannot be seen of his combat pack are the bread bag and cooking kit (*Kochgeschirr*). Also suspended from the corporal's belt is his helmet, painted in field-expedient camouflage.

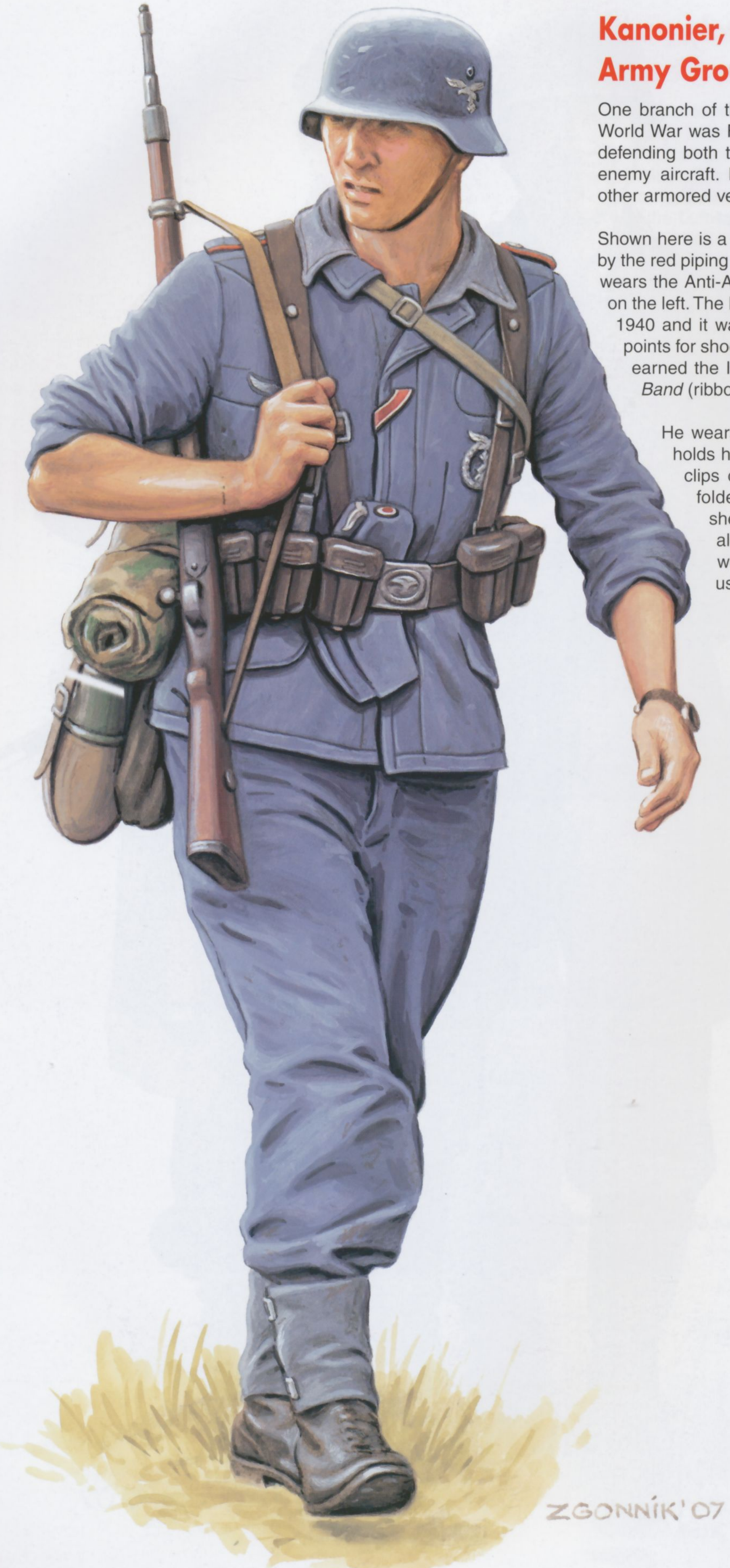
Flieger, 20th Field Division, Italy, December 1943

His days as a machine gunner aboard a bomber or an aircraft mechanic now over, this smiling *Flieger der Fliegertruppen* now fights as a *Landser.* On top he wears the "Second Pattern" camouflaged paratrooper's smock issued in 1941. Underneath can be seen the *Kragenspiegel* of his rank and branch: one pair of wings on flying service yellow. The Luftwaffe styled eagle and swastika can be seen on his blue-gray helmet. His *Tuchhosen* are bloused into his leather *Marchstiefel.*

Leather "Y" straps support his *Sturmgepäck* or light-weight combat pack. On either side of his silver enlisted man's Luftwaffe belt buckle are three ammunition pouches, each with 30 rounds. The diagonal strap hanging on his left shoulder hold the storage canister for his M-30 gasmask (mostly concealed). Visible on the airman's right hip is the ¾ liter canteen and drinking cup.

His only weapon is the ubiquitous Mauser Karbine 98. The 7.92mm Kar 98 (and its regular rifle version) was the standard German bolt-action rifle throughout both world wars. It was a sturdy and reliable weapon.



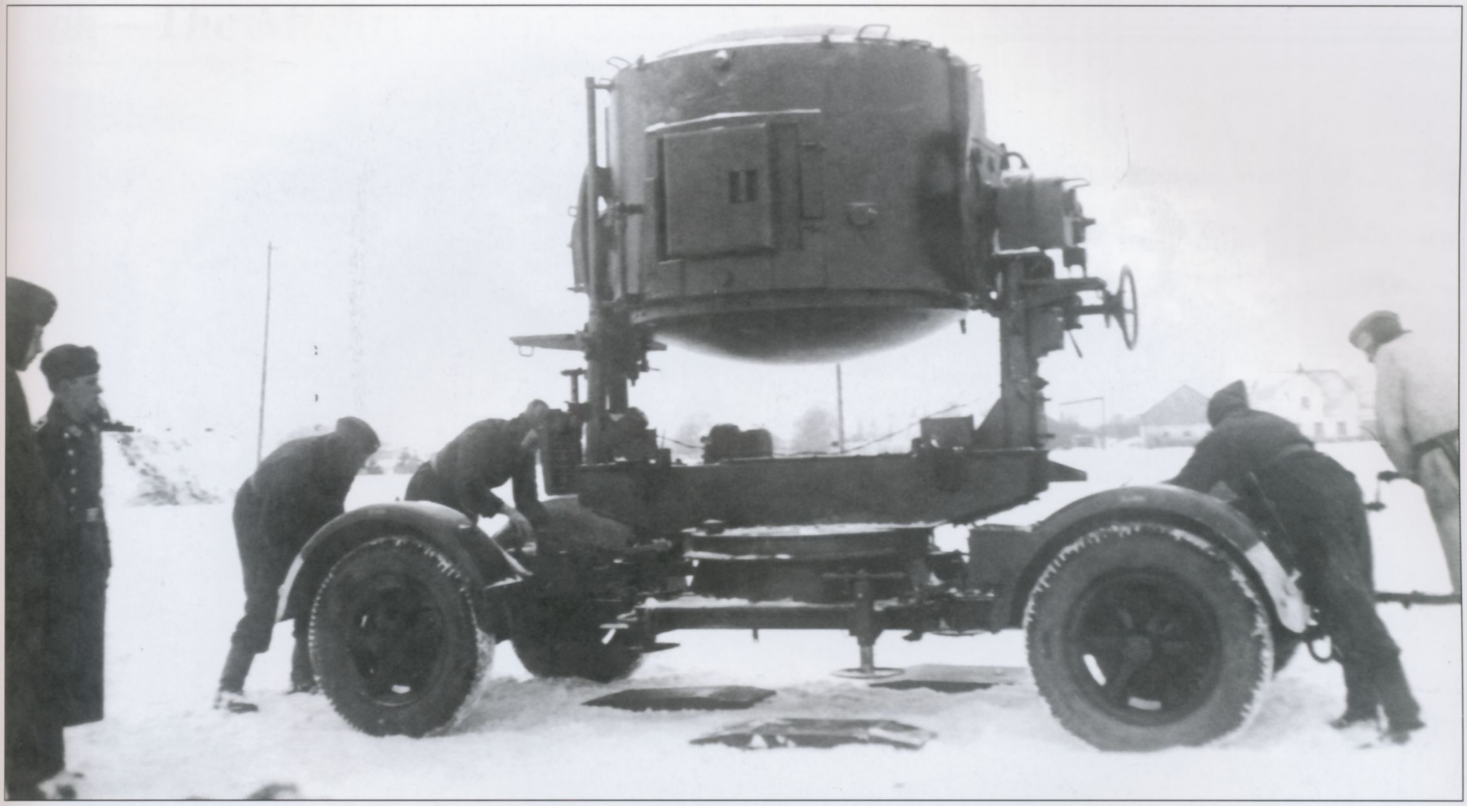


Kanonier, 4th Field Division, Army Group Center, July 1944

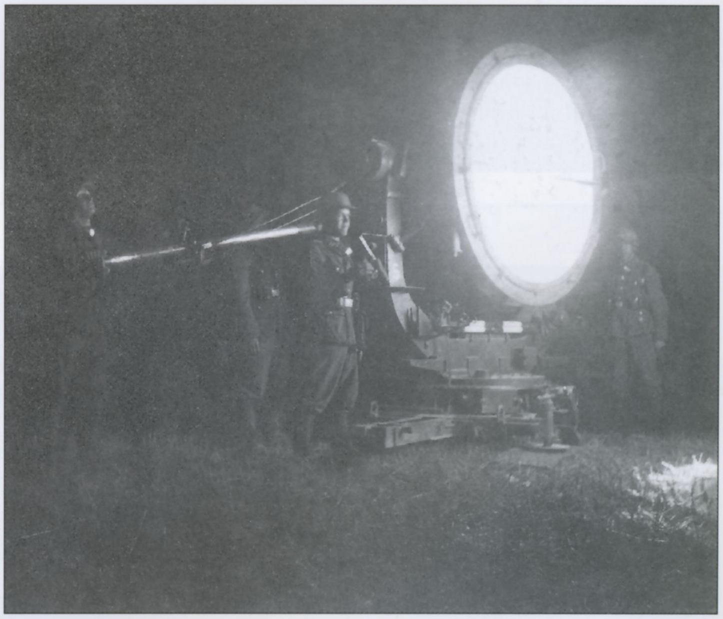
One branch of the Luftwaffe that grew throughout the Second World War was Flak. Flak took over increased responsibility for defending both troops in the field and the German Reich form enemy aircraft. It also destroyed countless enemy tanks and other armored vehicles.

Shown here is a *Kanonier* of the Flak, in this case distinguished by the red piping on his shoulder straps. On his left chest he also wears the Anti-Aircraft Badge, opposite from the nation symbol on the left. The Luftwaffe introduced the *Flakkampfabzeichen* in 1940 and it was awarded to members of units accumulating points for shooting down enemy aircraft. This airman has also earned the Iron Cross, Second Class as evidenced by the *Band* (ribbon) in his *Fliefgerbluse* button hole.

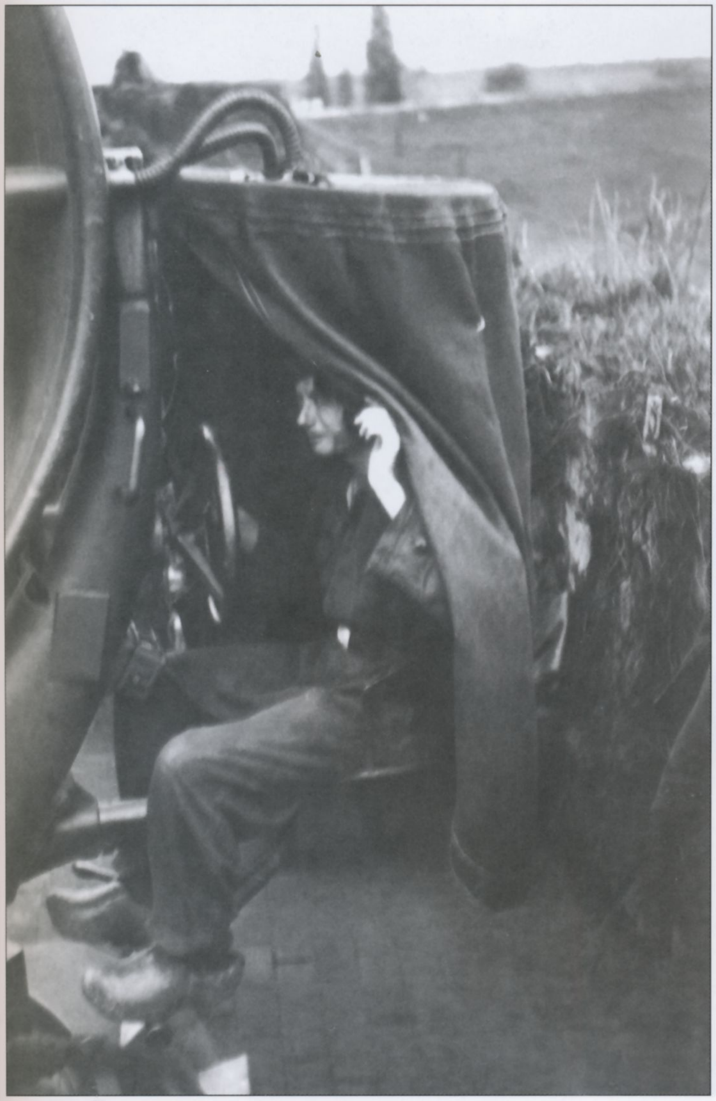
He wears a helmet with standard decals. His "Y" strap holds his belt with ammunition pouches (each with six clips of five rounds each). Tucked into his belt is a folded *Fliegermüutze* (side cap). His *Zeltbahn* shelter is rolled up and carried on his combat pack along with his bread bag and canteen. He also wears new ankle boots and leggings and as usual, is armed with his trusty Kar 98.



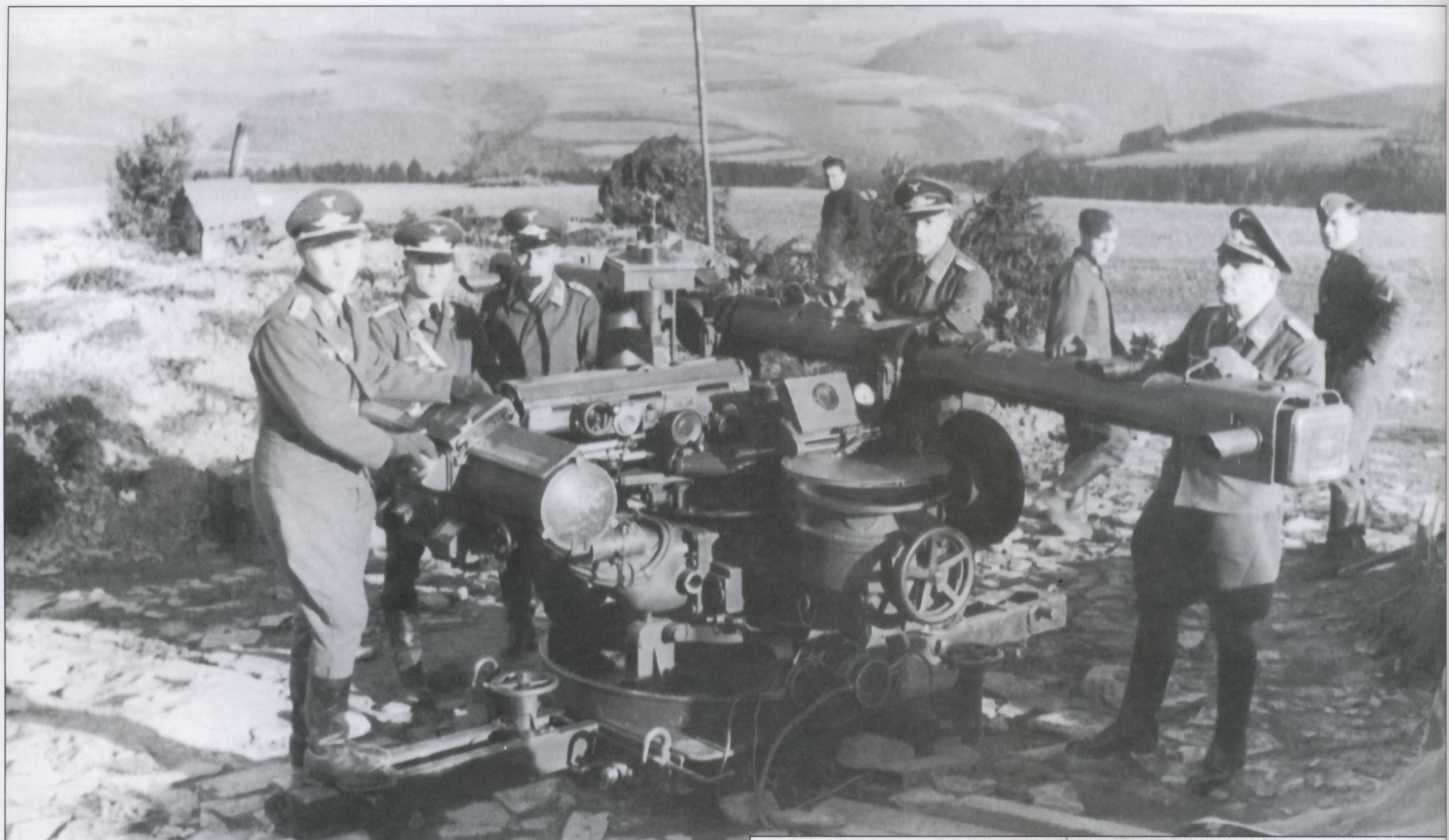
Crewmen prepare to put a 150cm searchlight into operation. Man on right in *Drillichanzug* cranks it down from its trailer to wooden blocks while a *Feldwebel* (second left) supervises. Searchlights generally created a wall of light that enemy bombers had to fly through.



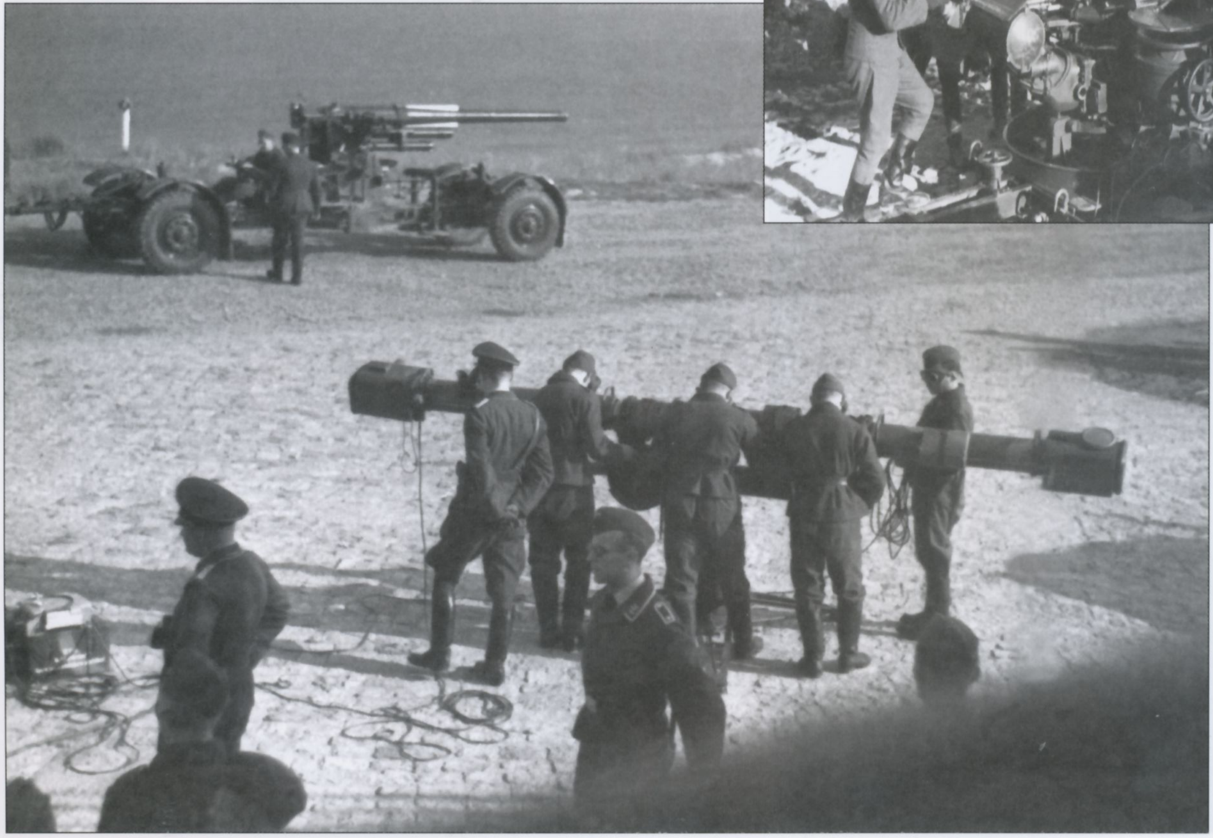
A 150cm searchlight in operation at night. Man at left remotely aims light with the pole. In good weather its beam could reach an altitude of 16,000ft. A battery consisted of four 150cm lights that were used in conjunction with a 200cm "master" light that had a distinguishing blue beam of light.



A 150cm searchlight operator's position curtained off (at night!) to protect his night vision. Judging by this man's footwear he may be at the northern portion of the Kammhuber Line in occupied Holland. A crew of 14 normally operated this type of searchlight.

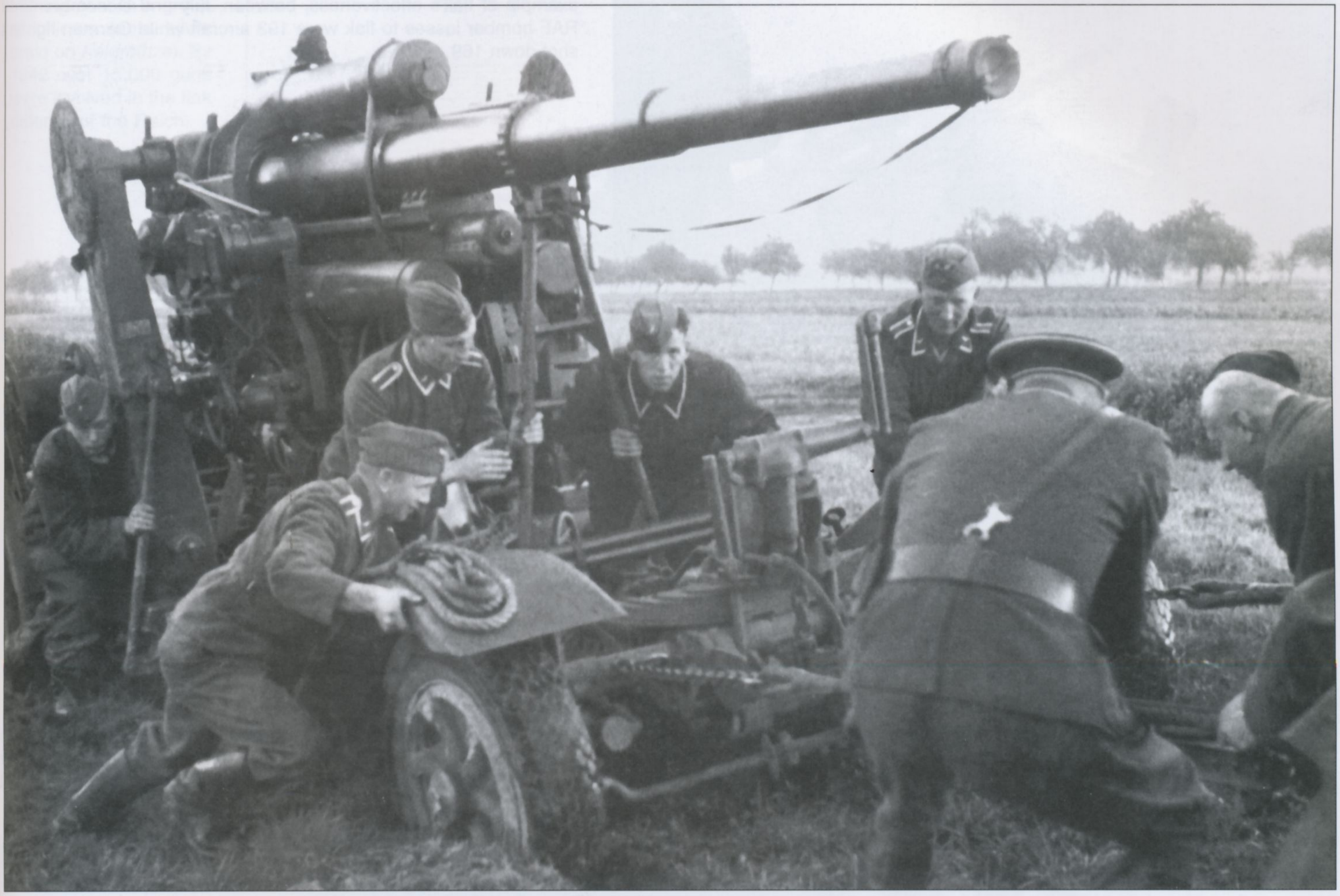


Two photos of officers, NCOs (center and far left) standing around a *Kommandogerät* 36 as junior enlisted men look on from a distance. This device, a state-of-the-art computer for its time, took a target's height and range plus its azimuth and angle of slant to compute its rate of change and most importantly, compute the enemy's predicted future location.



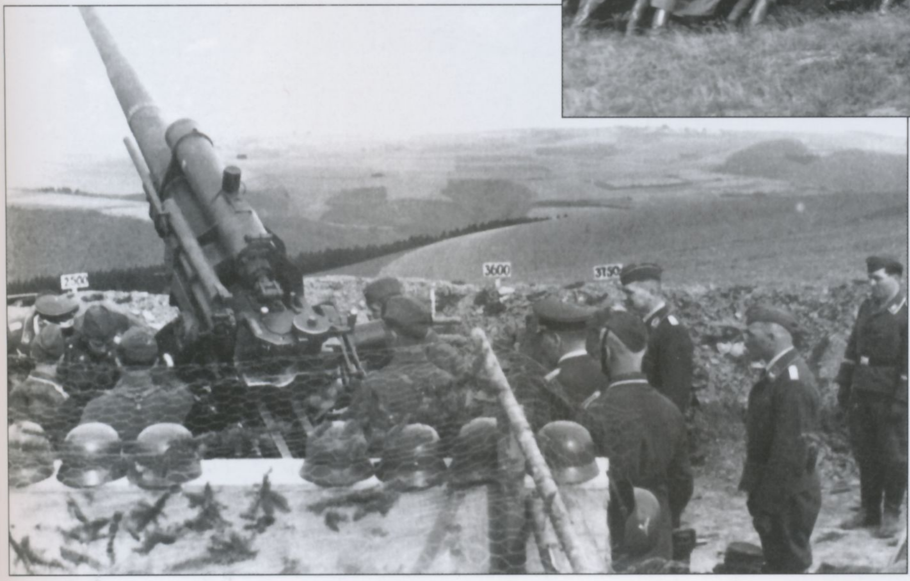
Crew puts standard 3m rangefinder into operation. Two officers (left in *Schirmmütze)* and a *Feldwebel* (center) are in attendance. Rangefinders and searchlights were often used in conjunction with trumpet-shaped sound locators (complete with "lag calculators") to get an accurate fix on enemy aircraft.

Flak—The Mighty 8.8cm



NCOs and enlisted men man-handling an 8.8cm through some soft earth, even an officer gets in the act (back to camera). The Flak 18, 36 and 37 models all used the same *Sonderanhanger* 102 trailer. Even thought the gun could fire from its trailer most fired dismounted. A good crew could dismount a gun and be prepared to fire in 20 seconds. It would take them about a minute to remount the gun to its trailer.

Another group of men man-handling an 8.8cm while a Magirus truck sits idly by. Following the Normandy invasion over 200 flak batteries moved from the Reich to France. This seriously impacted the homeland's air defenses.

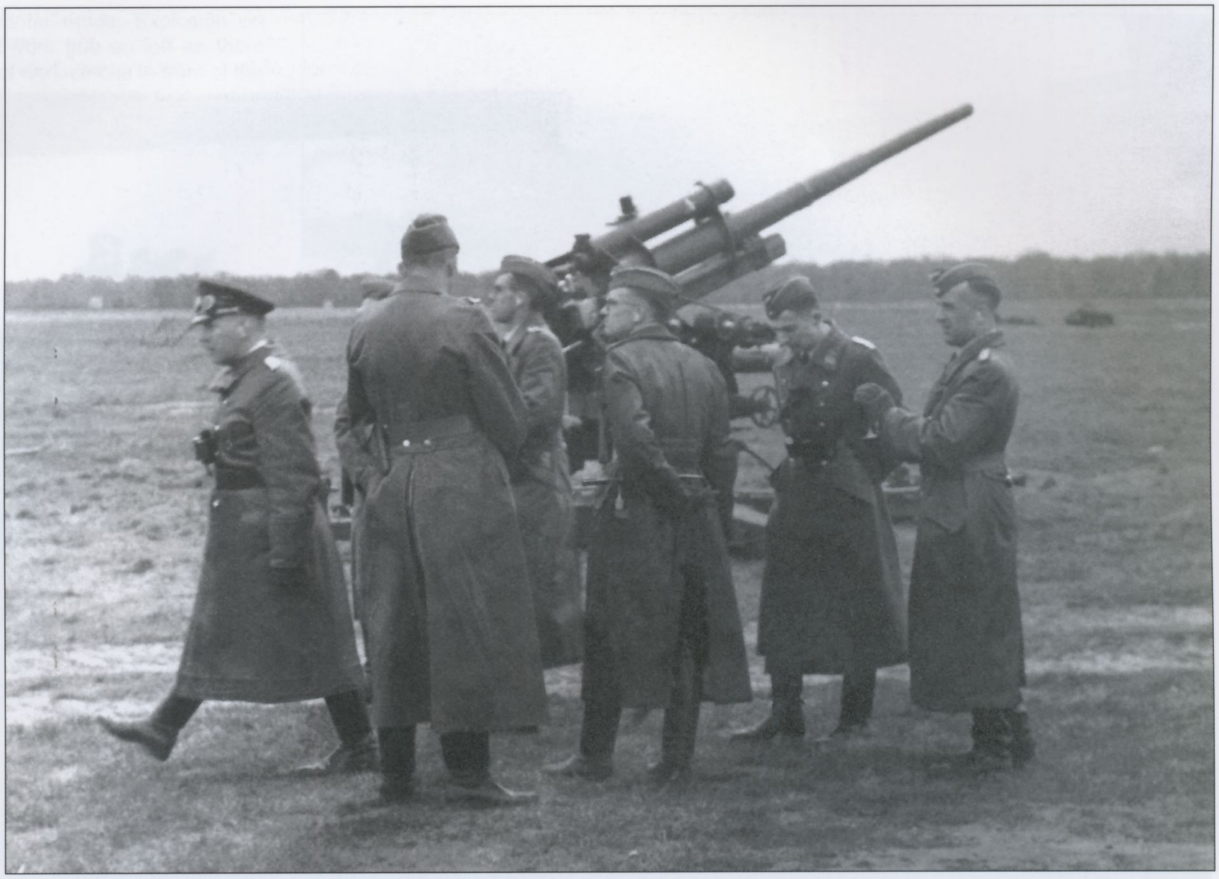


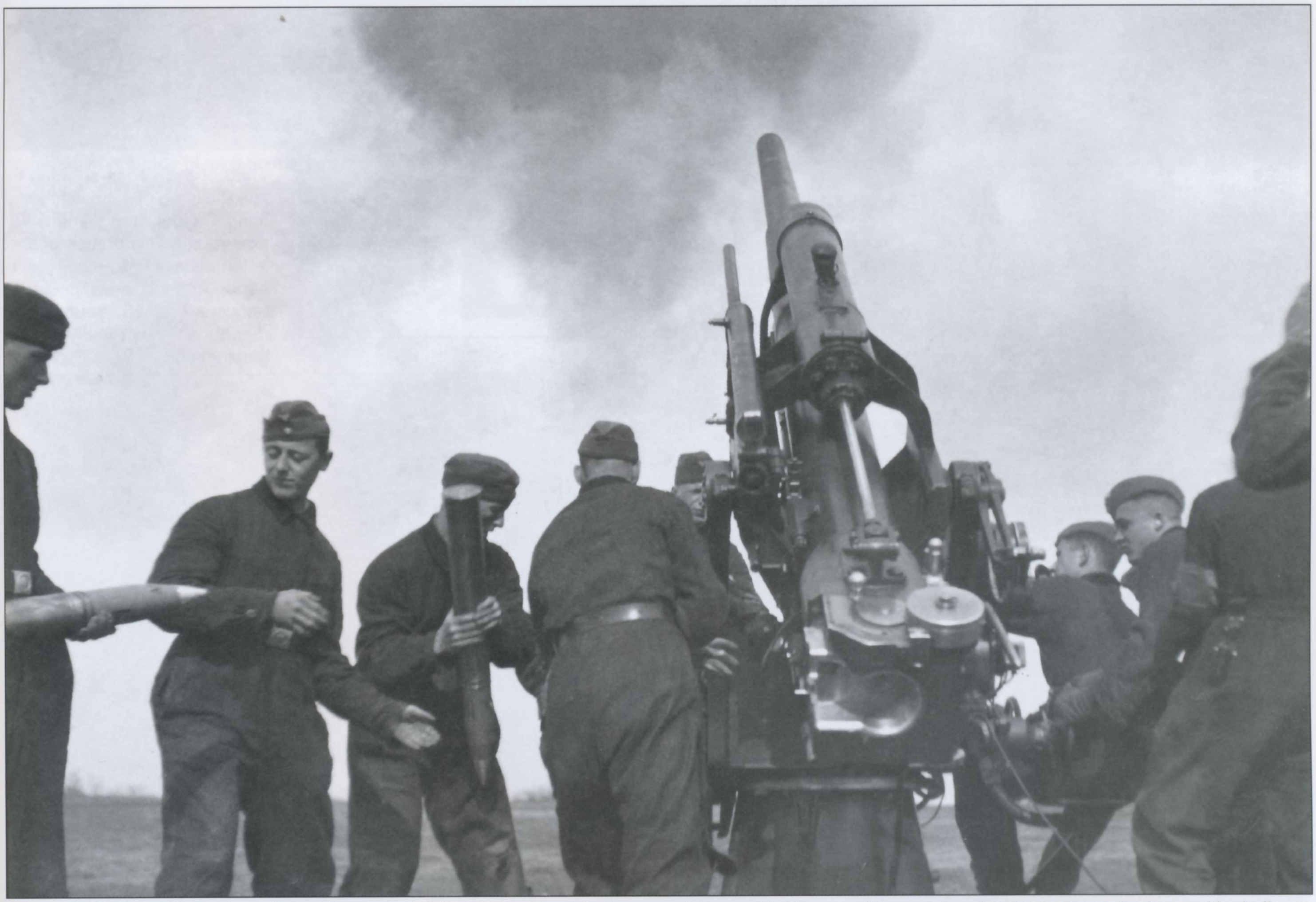
An 88 crew demonstrates their gun in action to a group of Luftwaffe officers. Small numbered signs show azimuth in mils (there are 6400 mils in a circle) to key terrain in the surrounding rolling German countryside. In this type of static air defense mode four guns were usually tied to one *Kommandogerät* 36 under the control of a single command post.

An 8.8cm pointing skyward from the gunner's position. He wears headphones connected to the battery's command post. As an example of flak's effectiveness, between July and December 1942 RAF bomber losses to flak were 193 aircraft while German fighters shot down 169.

Two lieutenants and a *Feldwebel* brief an Italian lieutenant (back to camera) and captain on the finer points of an 8.8cm. Luftwaffe officer in center wears a leather over coat while that to the rear has earned the Iron Cross 1st Class.

A senior officer wearing *Schirmmütze* inspecting training passes a group of officers (note silver braid on *Feldmütze*). By 1942 over 15,000 guns were involved in the flak defense of the Reich.

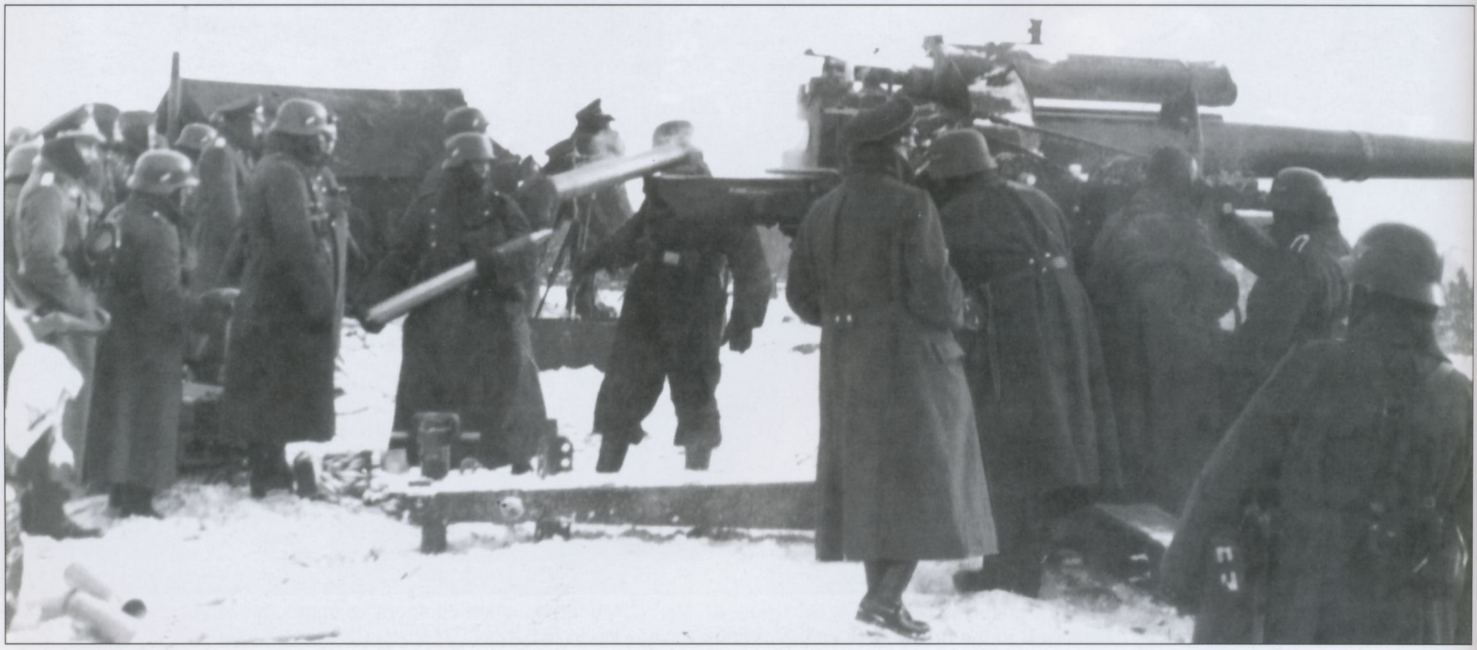




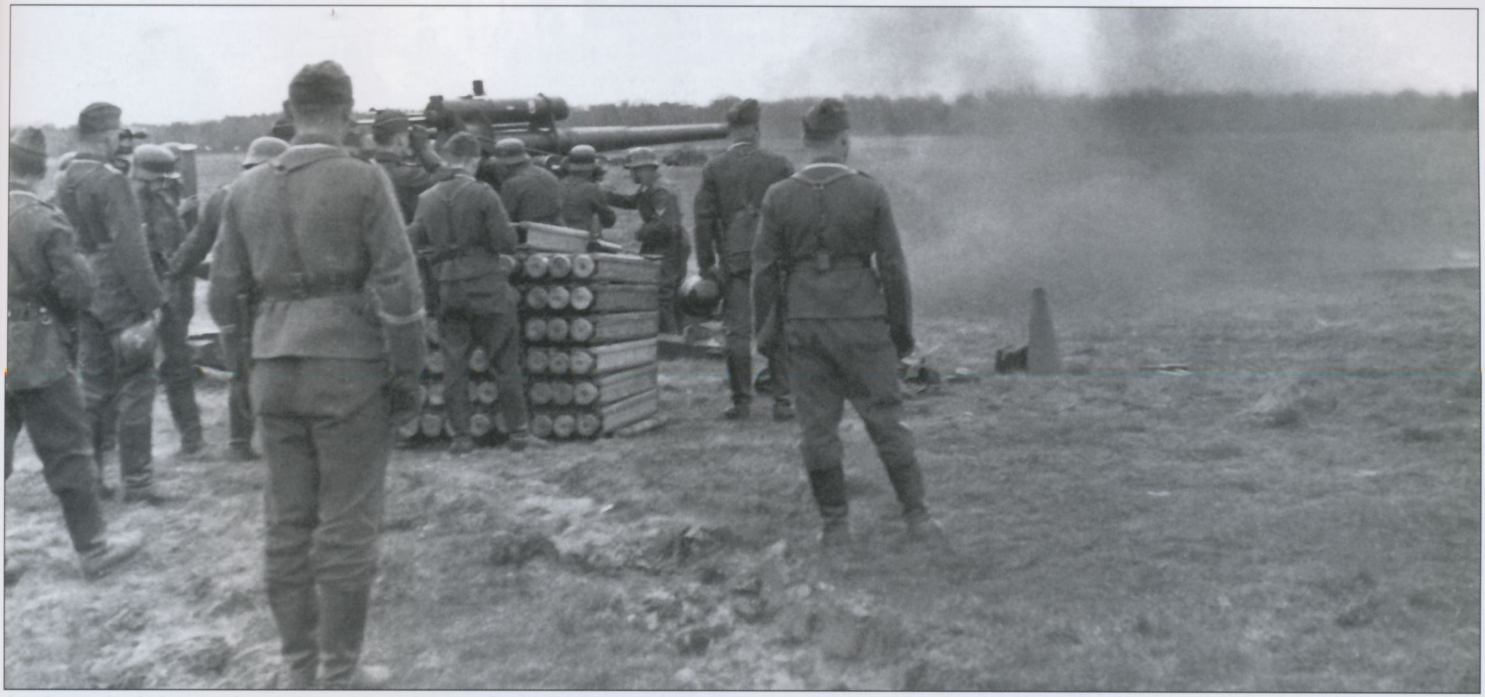
Men in black coveralls go through live-fire crew drill. This 8.8cm is at full 1m recoil. Men called "ammunition numbers" to immediate left of gun with shells upside-down are setting tip of round in device next to the breech that will set automatically altitude of burst.

Two of a series of three photos of 8.8cm training in the winter. Everyone is bundled against the cold as they practice firing the gun at ground targets. Germany produced over 14,000 88s during the war, peaking at 3,052 in 1942 and 4,712 in 1943.

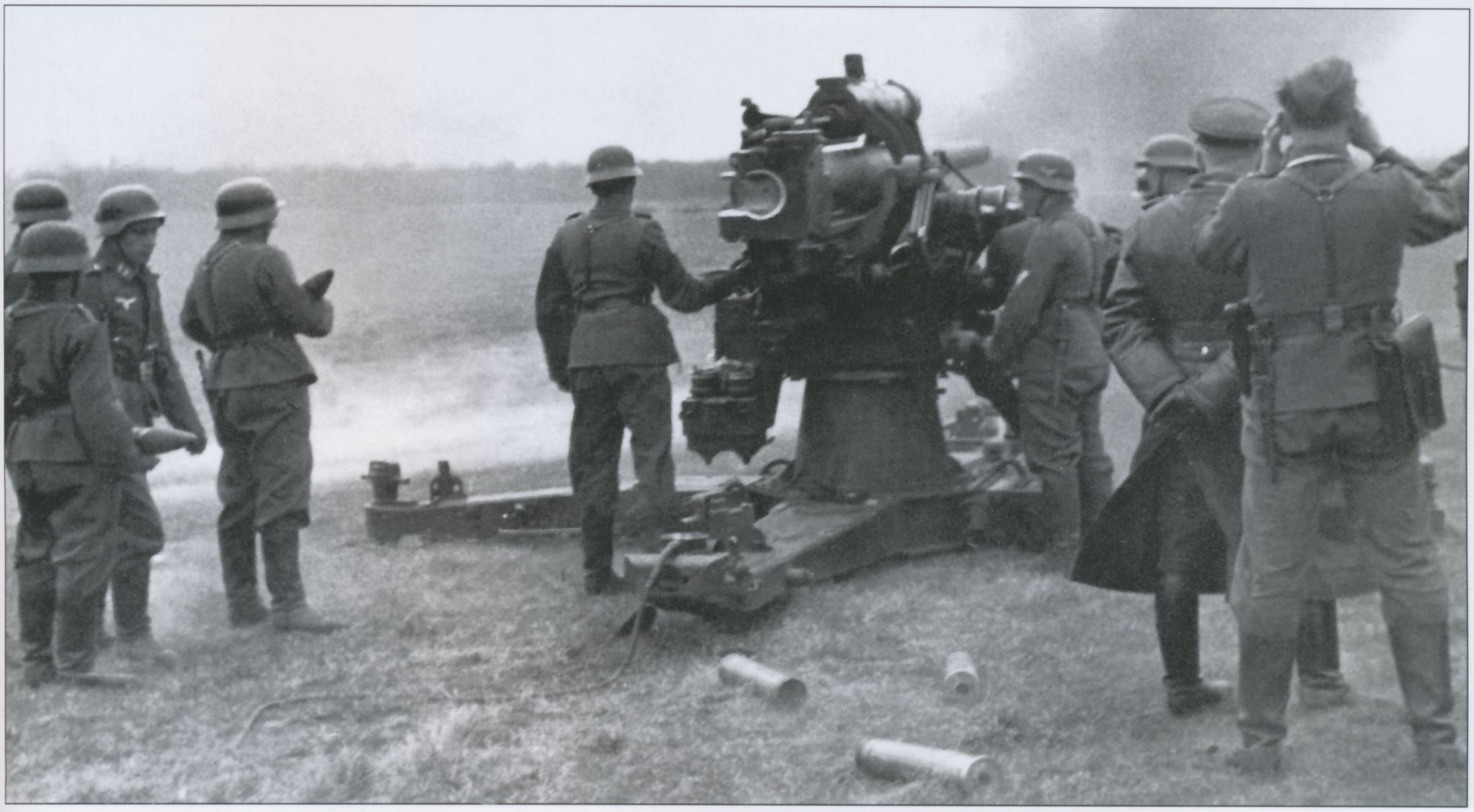
Third of the series showing the spent casing being ejected after firing. Loader stands ready with next round. The breech opened automatically via recoil or by hand. A good crew could fire between 12-15 rounds per minute (vertically or horizontally).



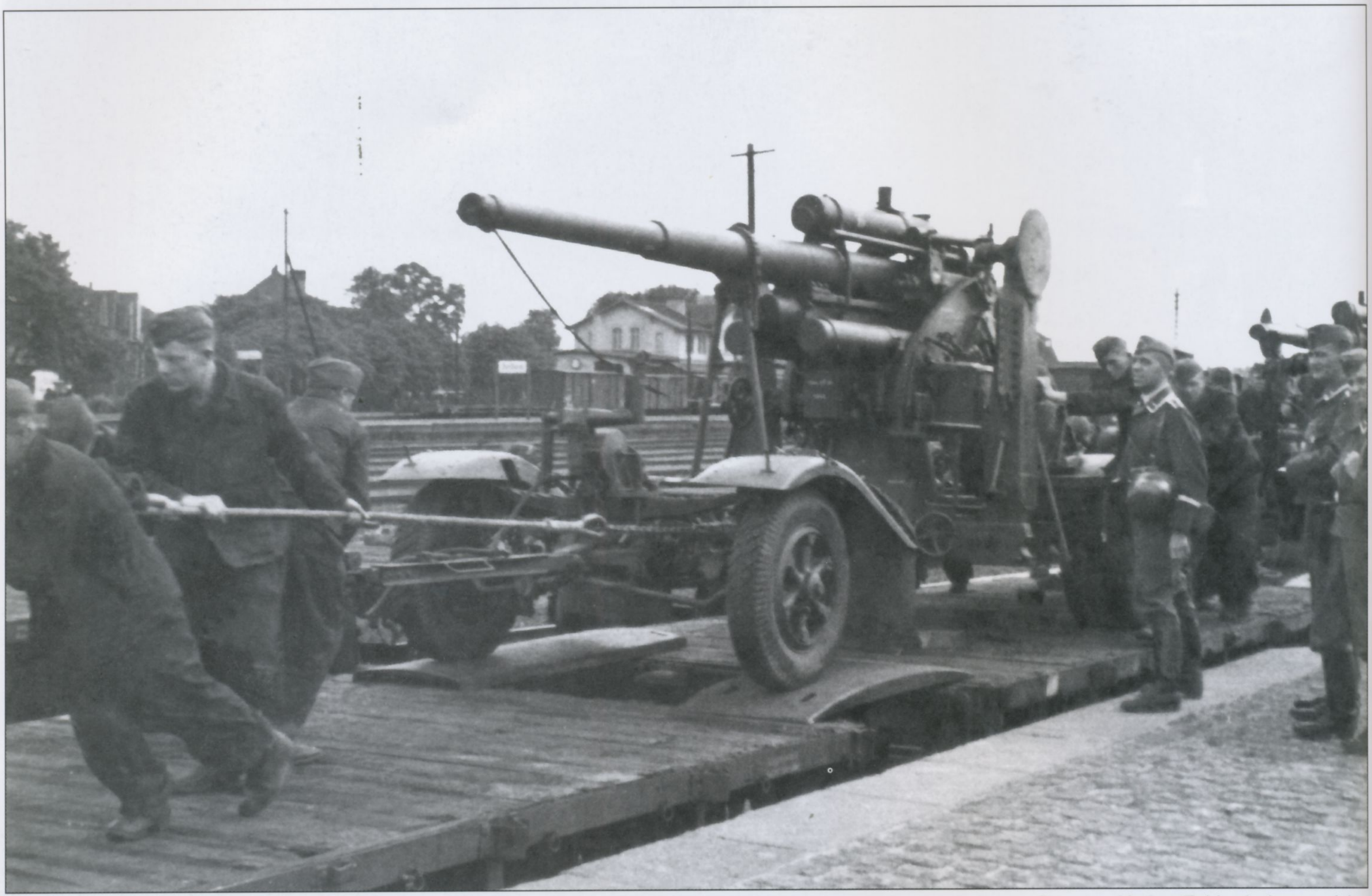
Practice firing in the horizontal mode. Explosion on distant hillside probably not from gun on left as there otherwise would be a cloud of dark smoke in front of the barrel. When the 8.8cm became a dual-purpose weapon its heavy use exceeded design parameters so the inner barrel sleeve had to be replaced more often than planned.



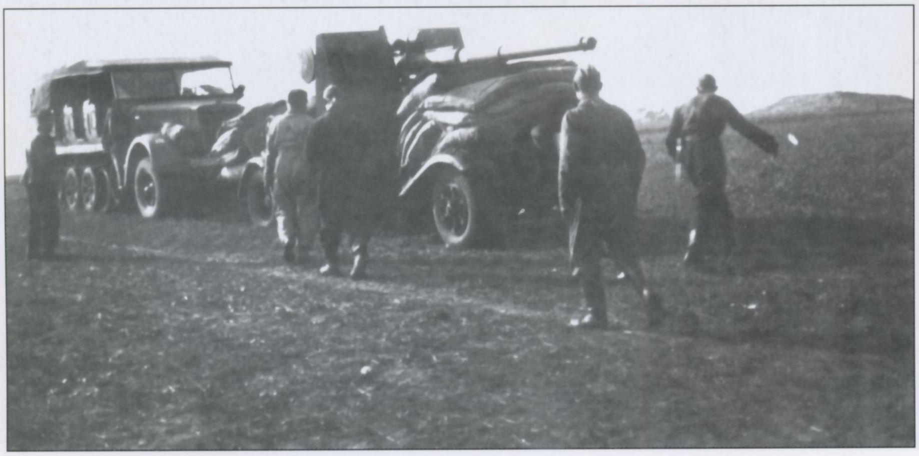
Another pair of photos of an 8.8cm crew training to fire horizontally. Photo above shows new rounds packed by threes ready to fire. Photo below shows loader standing by with next round. *Feldwebel* on far right watches through binoculars for strike of round. Entire crew appears to be waiting for smoke from earlier shot to clear before taking aim again.



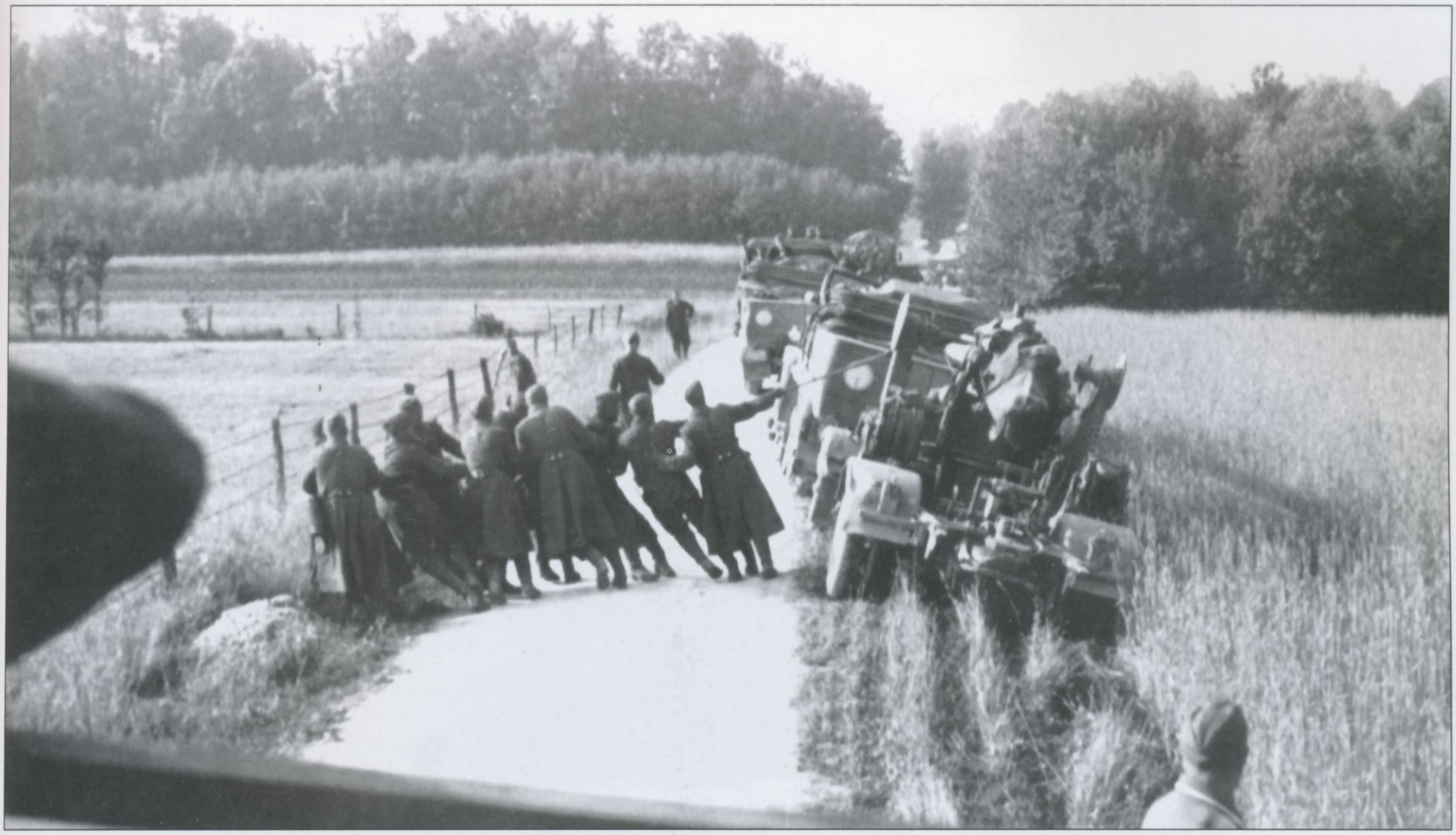
An 8.8cm unit on the move, in this case loading aboard flat cars at a rail head. Some men have shed their tunics as a couple of officers look on. Although these particular guns are not meant to fire from rail cars, railroad batteries were one answer to the problem of flak mobility. They became the elite of the flak forces.



Another photo of rail loading an 8.8cm. Here men pull and push a gun using a small ramp to bridge the gap between flat cars. Notice *Feldwebel* supervising this operation carries papers in his sleeve cuff that almost looks like a cuff title.



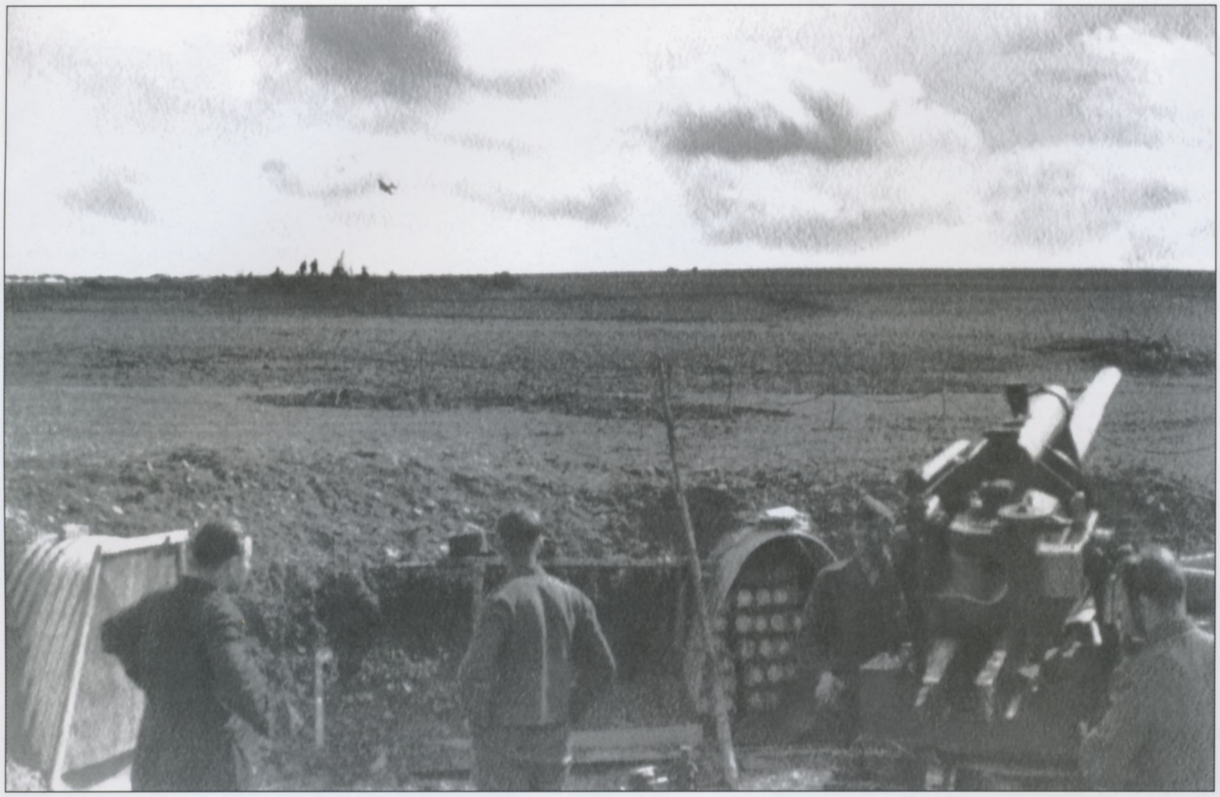
After the 8.8cm had definitely proven itself as a weapon against ground targets models built after 1941 mounted a substantial shield to protect the crew. This and other improvements made an already excellent gun into one of the war's best weapons. This trailer is also loaded down with splinter mats for additional protection.



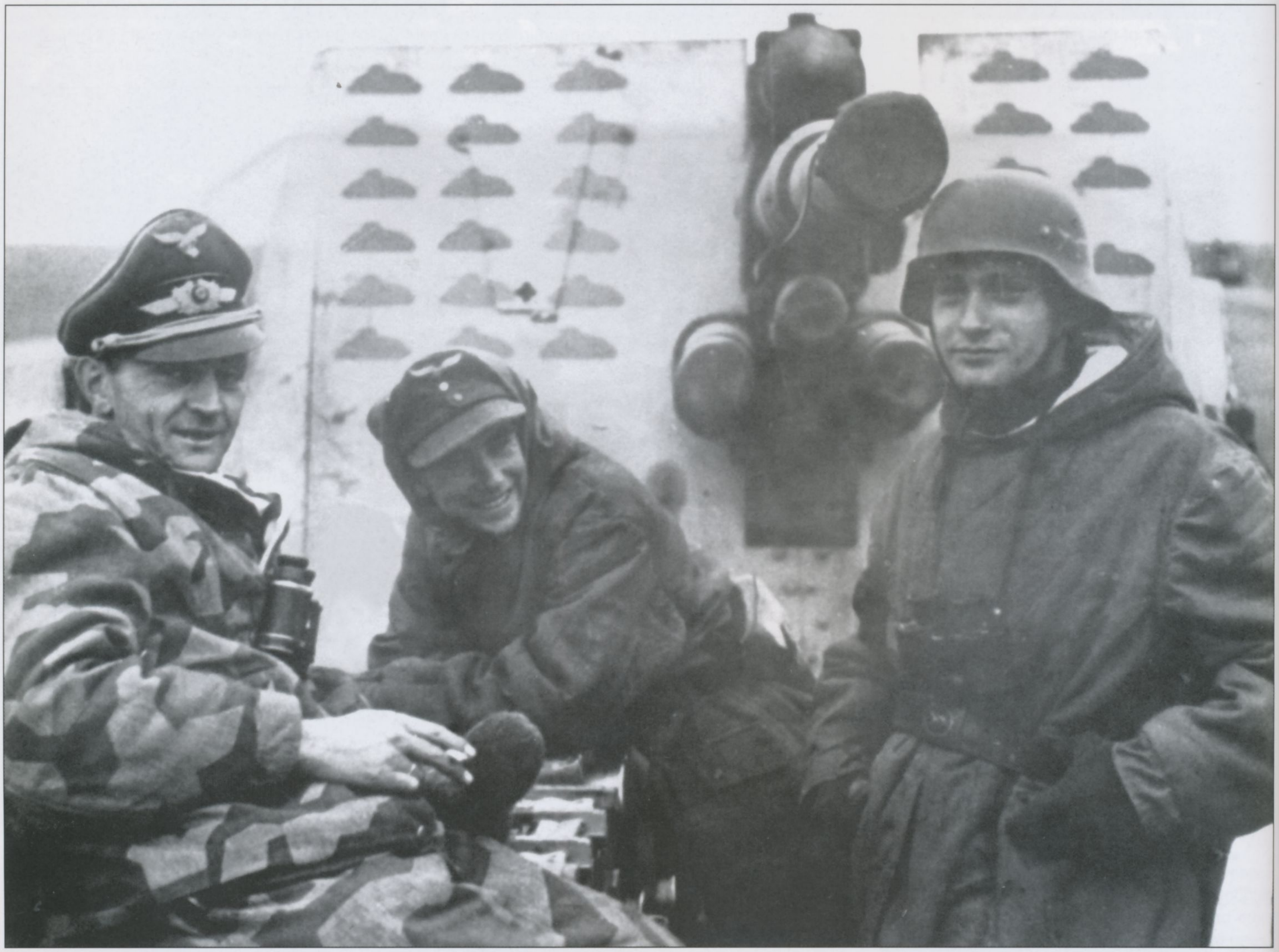
The prime mover of this 8.8cm evidently strayed off the road and the gun's trailer became mired. Here crewmen try to counter the gun's weight by pulling the opposite direction.

Two photographs of 8.8cm units in convoy. Upper photo could easily be in the USSR where straight dirt roads seemed to go on forever across a nearly featureless landscape. Road in lower photo appears to be paved (not at all common in the USSR) and could be just about anywhere in Europe.

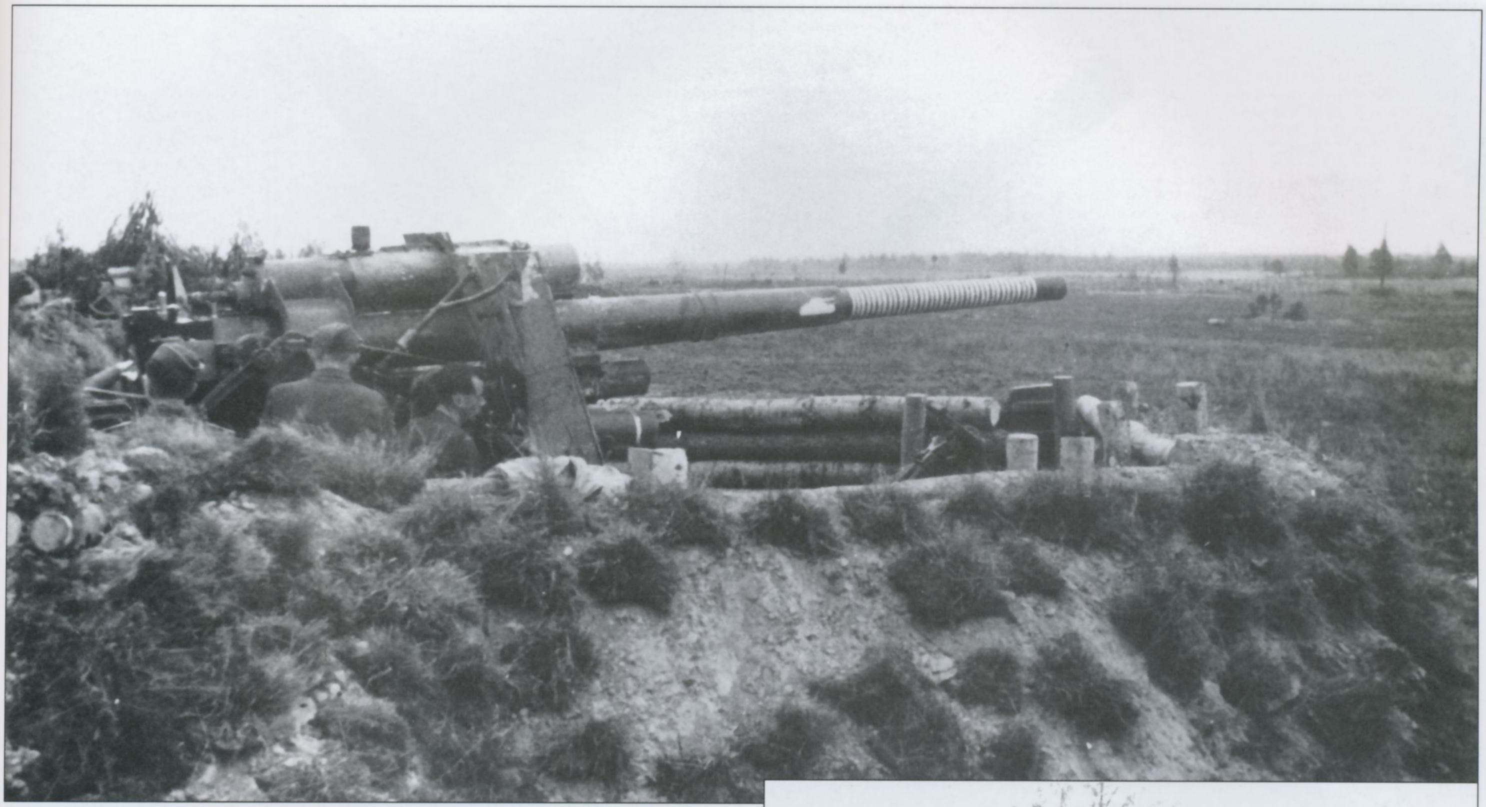
Another 8.8cm unit convoys through a rubbled village, possibly in Italy. In Italy the Göring Division was involved at Anzio and elsewhere while two Field Divisions defended Kesselring's Frieda Line.



An 8.8cm dug-in in a well prepared position that includes ammunition storage in corrugated metal shelters. Calm demeanor of the crew tends to indicate their gun and the aircraft on the horizon have little to do with one another.



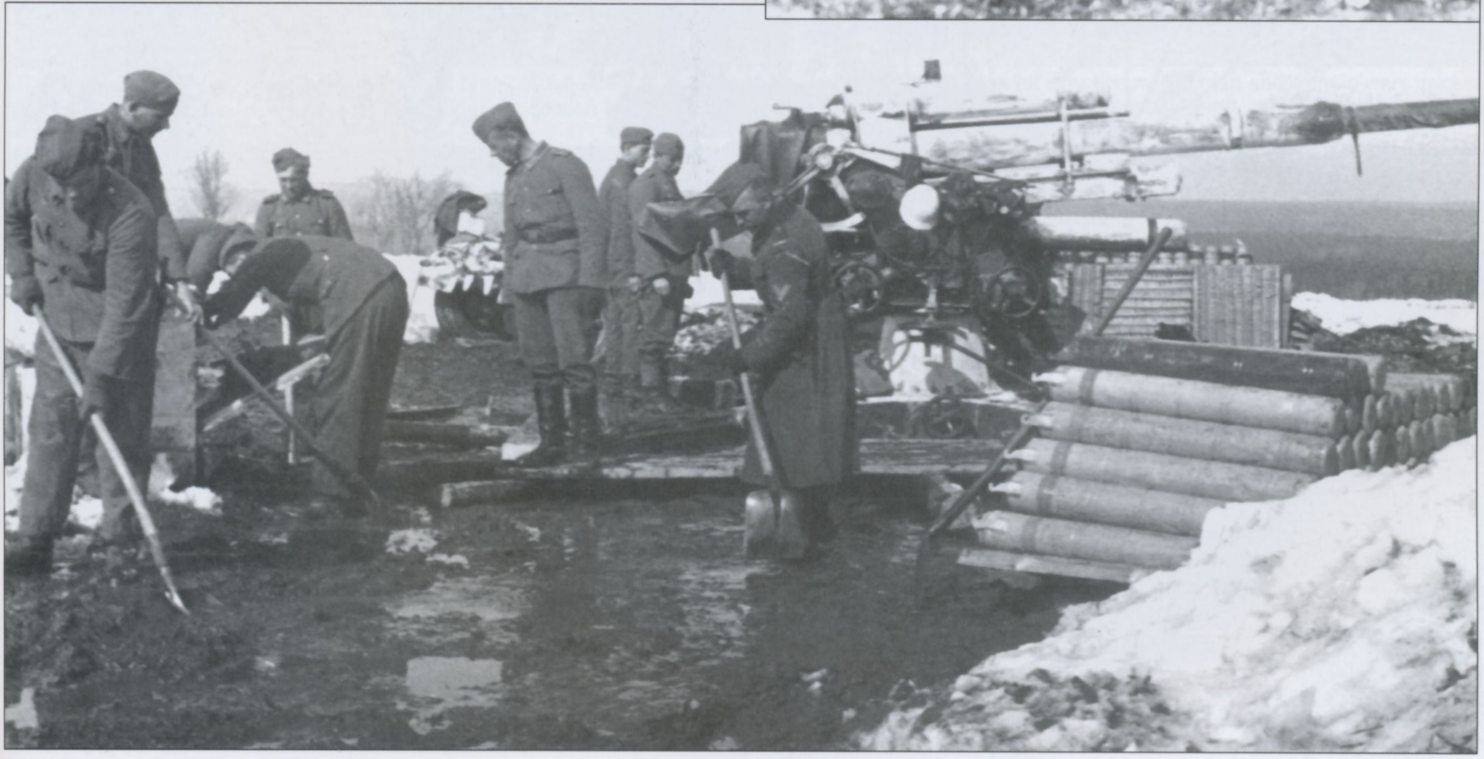
Smiling crew of an 8.8cm, the gun shield of which seems to indicate they've destroyed over 30 enemy tanks. All three wear reversible coat often used after Field Divisions were absorbed into the Army in 1943. The officer on left wears his camouflaged side out while his comrades have the gray side showing.

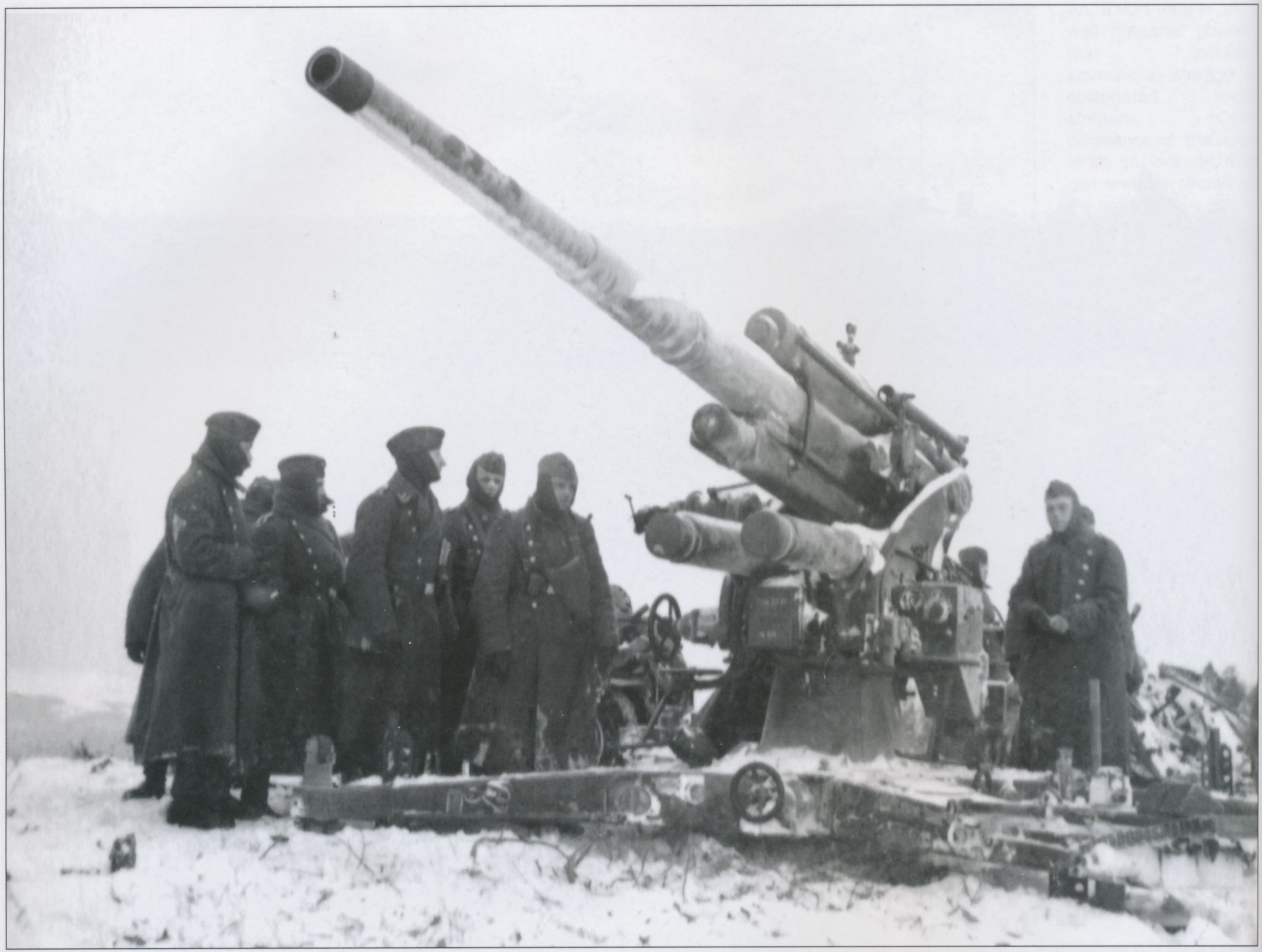


Another very successful 8.8cm crew, in this case they have over 40 victory rings on the barrel of their gun. By the look of their fighting position they've been here for a long time.

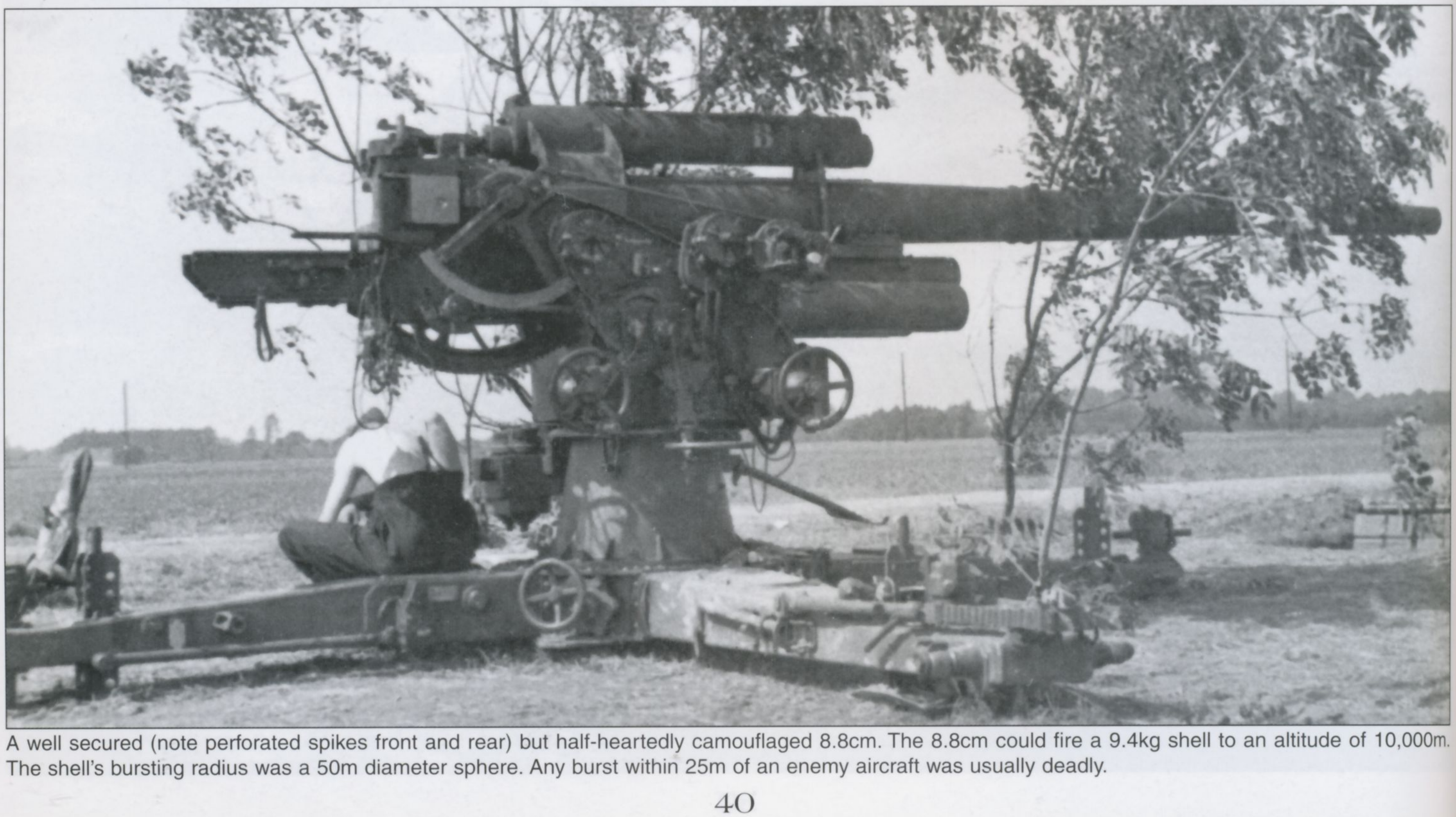
Business end of a well dug-in and camouflaged 8.8cm. Most 8.8cms seen in photographs are not as well protected as this and in fact are quite conspicuous. Once the 8.8cm began to be used more and more in ground combat losses quickly became unacceptable.

Clean-up time at an 8.8cm gun emplacement. The gun is white-washed as a partial camouflage measure while shipping canisters for individual shells are stacked neatly to the right. Maximum range when firing at ground targets was an astonishing 16,600m.

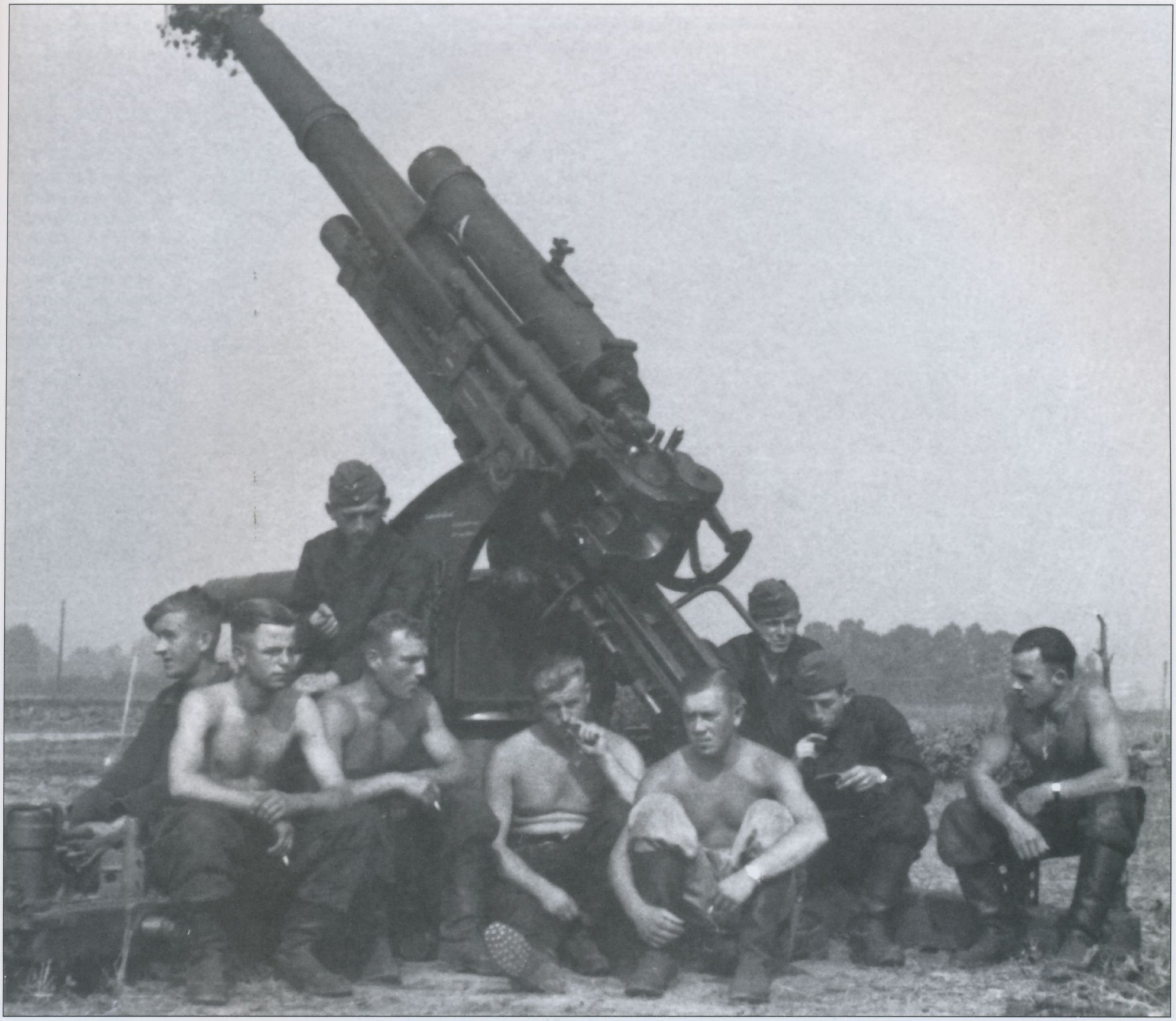




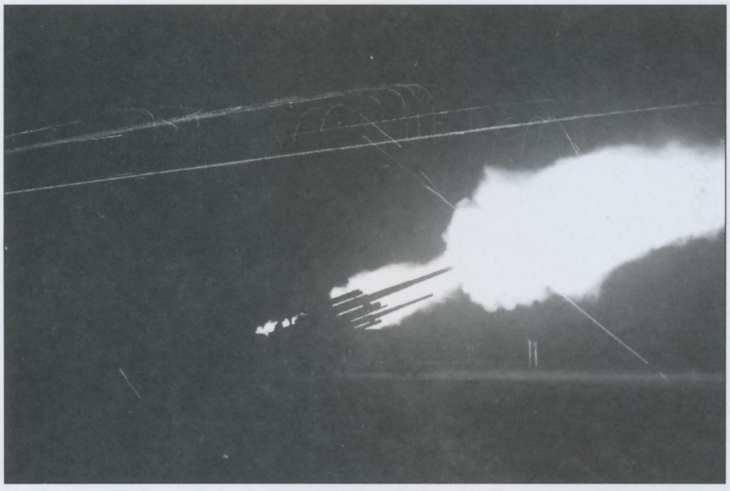
Another white-washed 8.8cm in a winter setting. Crews trained regardless of the weather. After the Spanish Civil War the 8.8cms gun mount was redesigned for horizontal firing and fitted with a Flak ZF20-E telescopic sight (sights were not used when firing in the anti-aircraft mode).



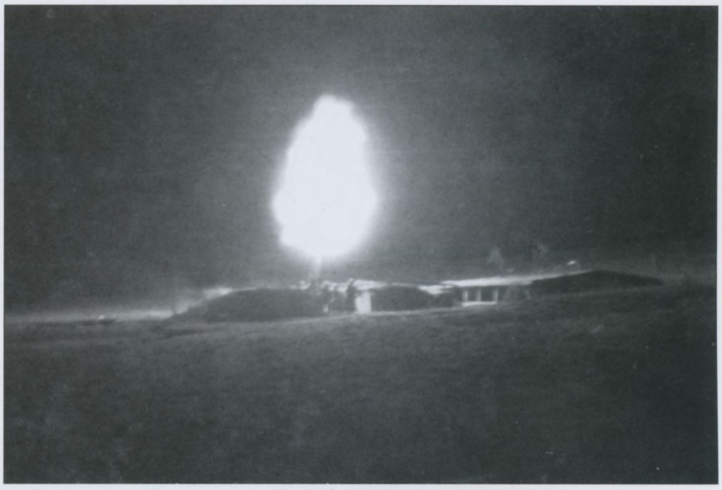
A well secured (note perforated spikes front and rear) but half-heartedly camouflaged 8.8cm. The 8.8cm could fire a 9.4kg shell to an altitude of 10,000m. The shell's bursting radius was a 50m diameter sphere. Any burst within 25m of an enemy aircraft was usually deadly.



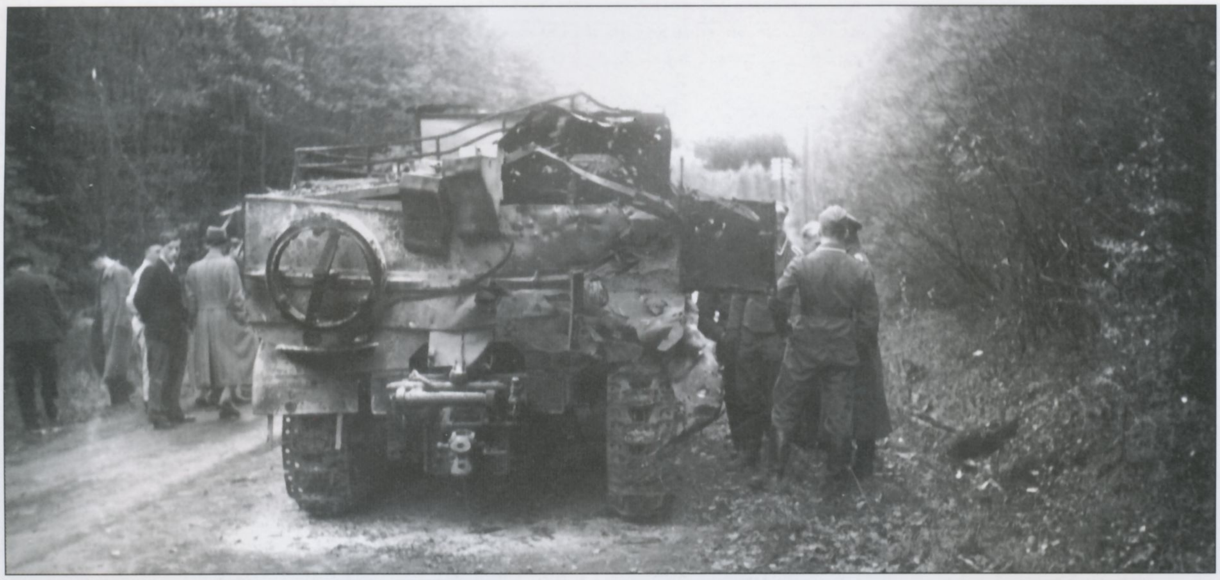
The mostly-shirtless crew of an 8.8cm takes a break. A full-strength crew consisted of nine men. At its peak over two million men and women were involved in the Reich's air defense. By 1944 30% of all gun production and 20% of all heavy ammunition production went to the flak arm.



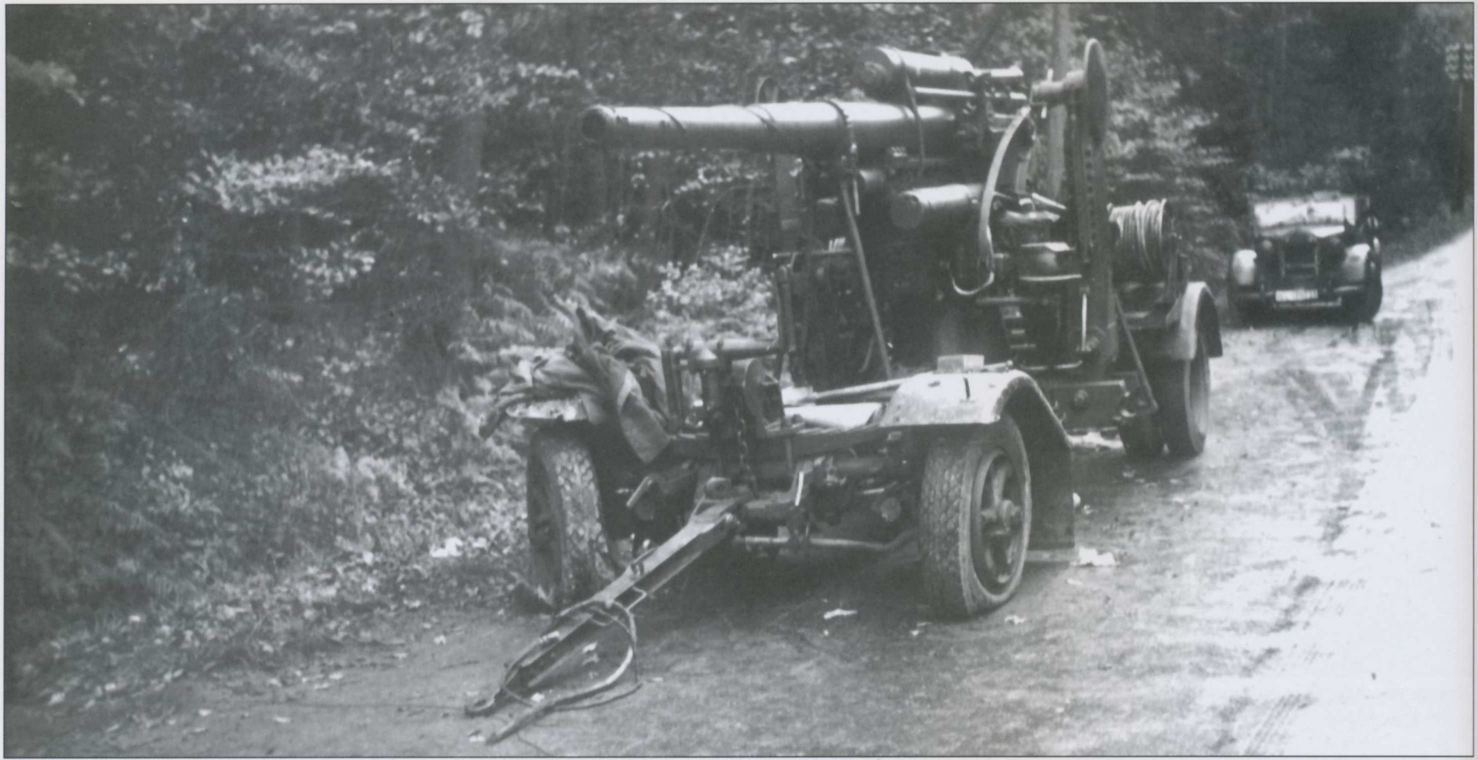
Numerous Flak guns including a pair of 8.8cms (foreground) in action at night. Tracers are clearly shown although it's difficult to determine what they're shooting at: trajectories are too high for ground targets but too low to indicate air targets. Additionally, the burst of the round, not tracers, were mainly used to adjust antiaircraft fire.

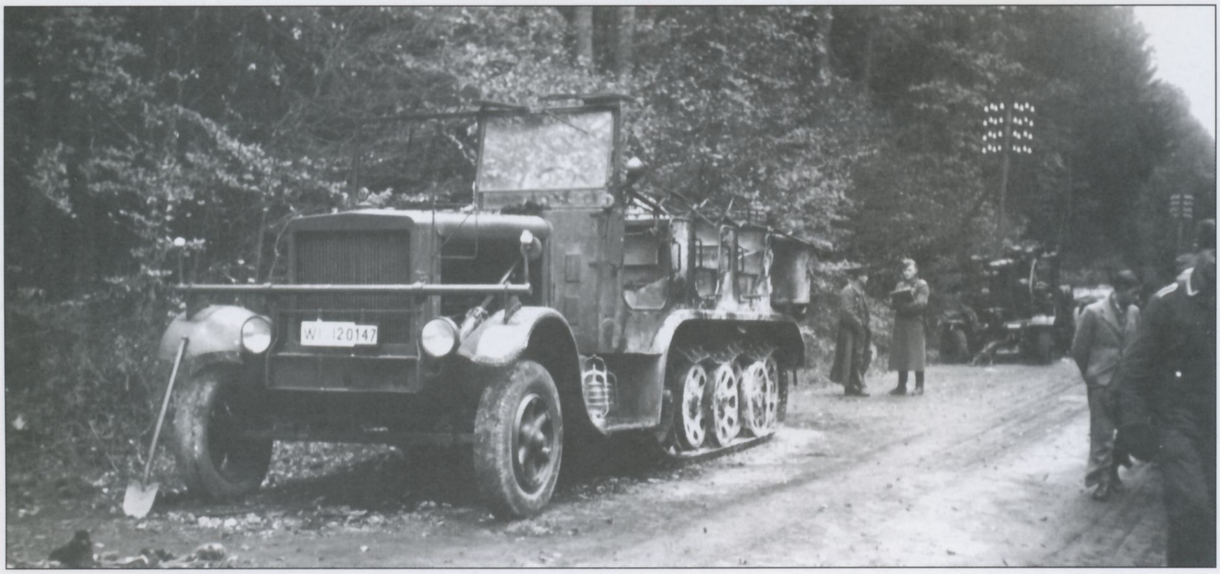


An 8.8cm and its crew well-illuminated by the flash of the gun. Weapon is pointed almost straight up in antiaircraft mode. The monthly expenditure of flak shells went from 500,000 in 1941-42 to 3,175,000 in December of 1944. For each bomber shot down an average of 3,343 shells were fired at a cost of RM 267,000 ($107,000).



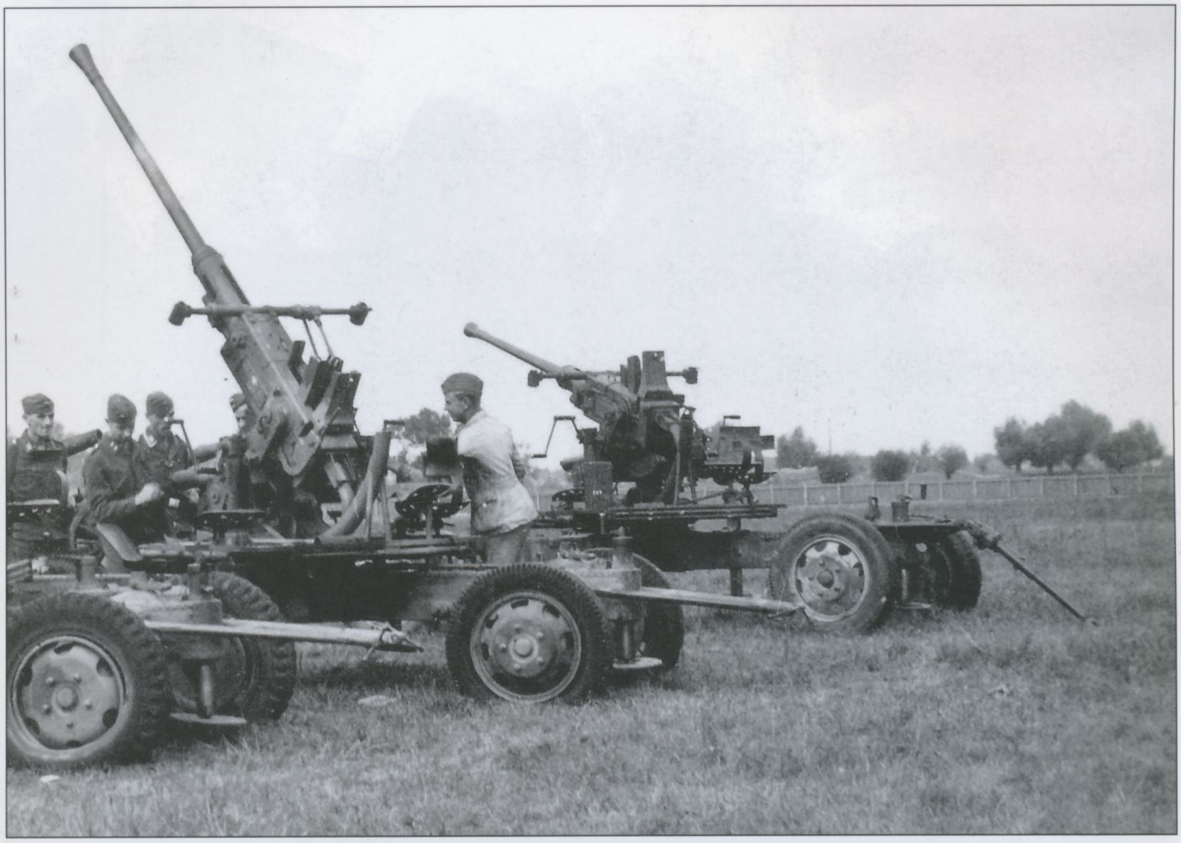
Three photos of troops and civilians inspecting a wrecked 8.8cm and its prime mover. Since there doesn't appear to be any indication of enemy action it seems gun trailer came loose from the vehicle. Possibly the vehicle stopped and the trailers smashed into it damaging the right rear of the prime mover and the front of the trailer.



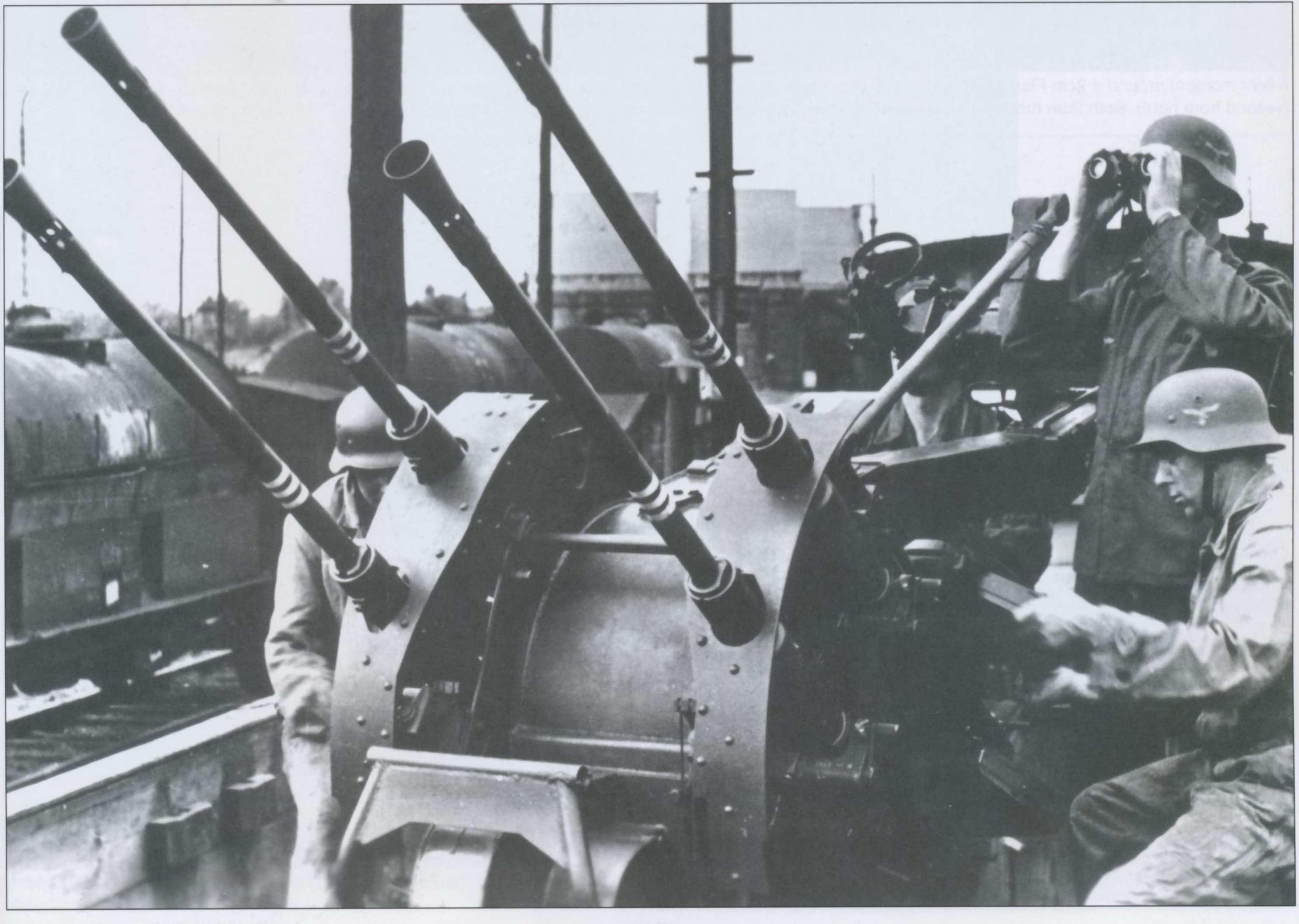


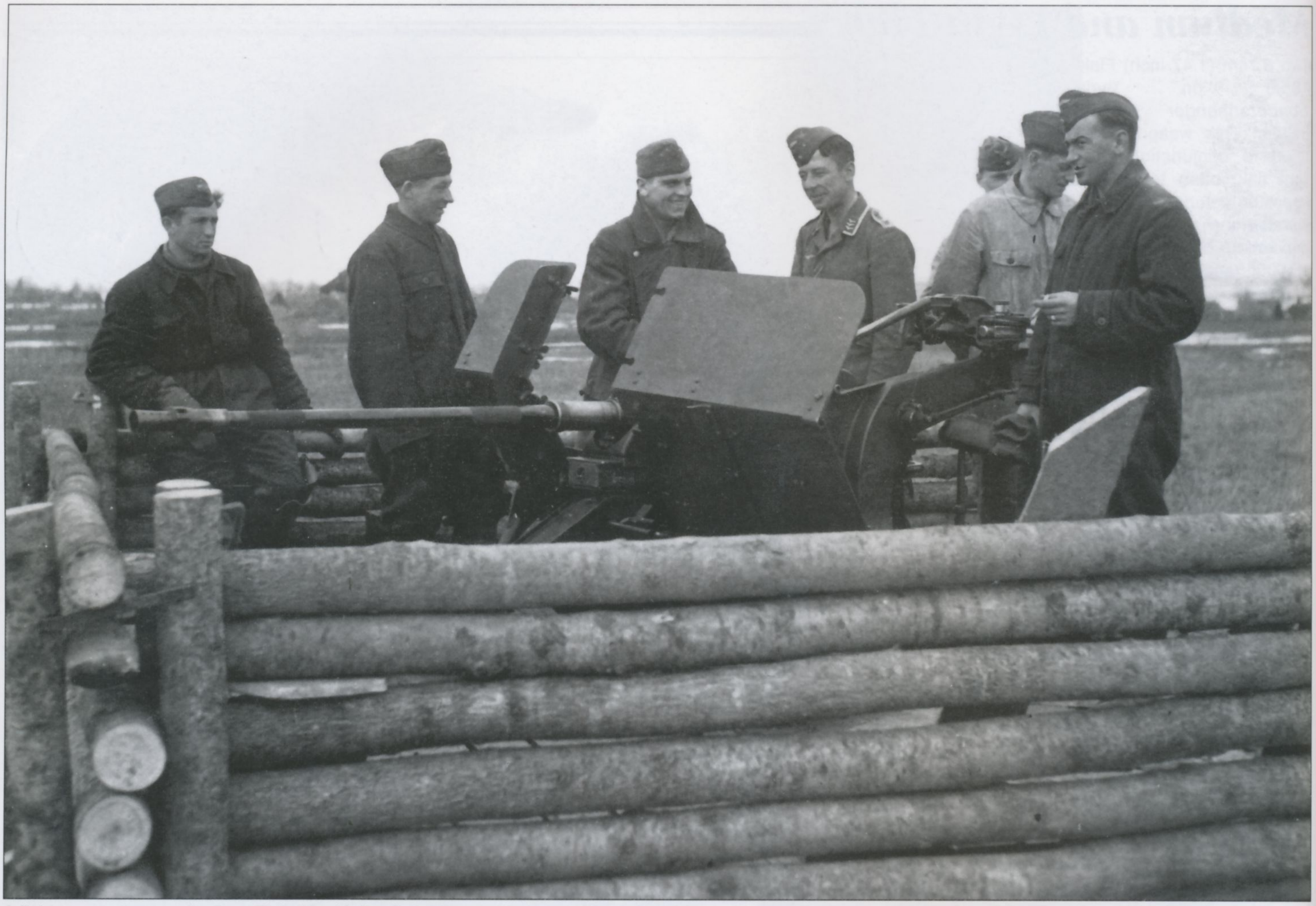
Medium and Light Flak

Two 3.7cm (1.47 inch) Flak 18/36 on their *Sonderanhanger* 104 trailers. This weapon was used in conjunction with light flak, often to protect important military installations. It had a maximum vertical range of 15,600ft and practical rate of fire of 60 rounds per minute (rpm). Its .556kg shell killed by contact only, i.e., did not explode in an air burst.



A 2cm Flak 38 quadruple mount guarding a rail facility. Crewman in lower right in *Drillichanzug* loads 20-round magazine. This weapon had two operators, one who fired the top left and bottom right guns while the other fired the top right and bottom left guns. The loader could change magazines while the other barrels continued to fire.

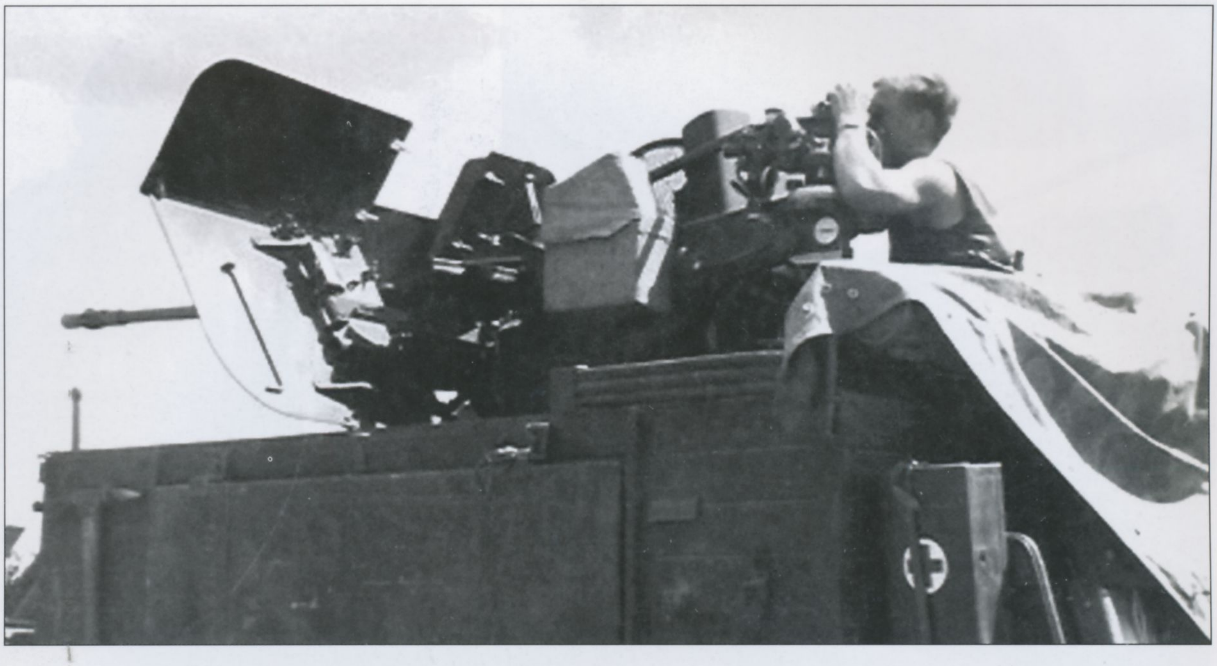


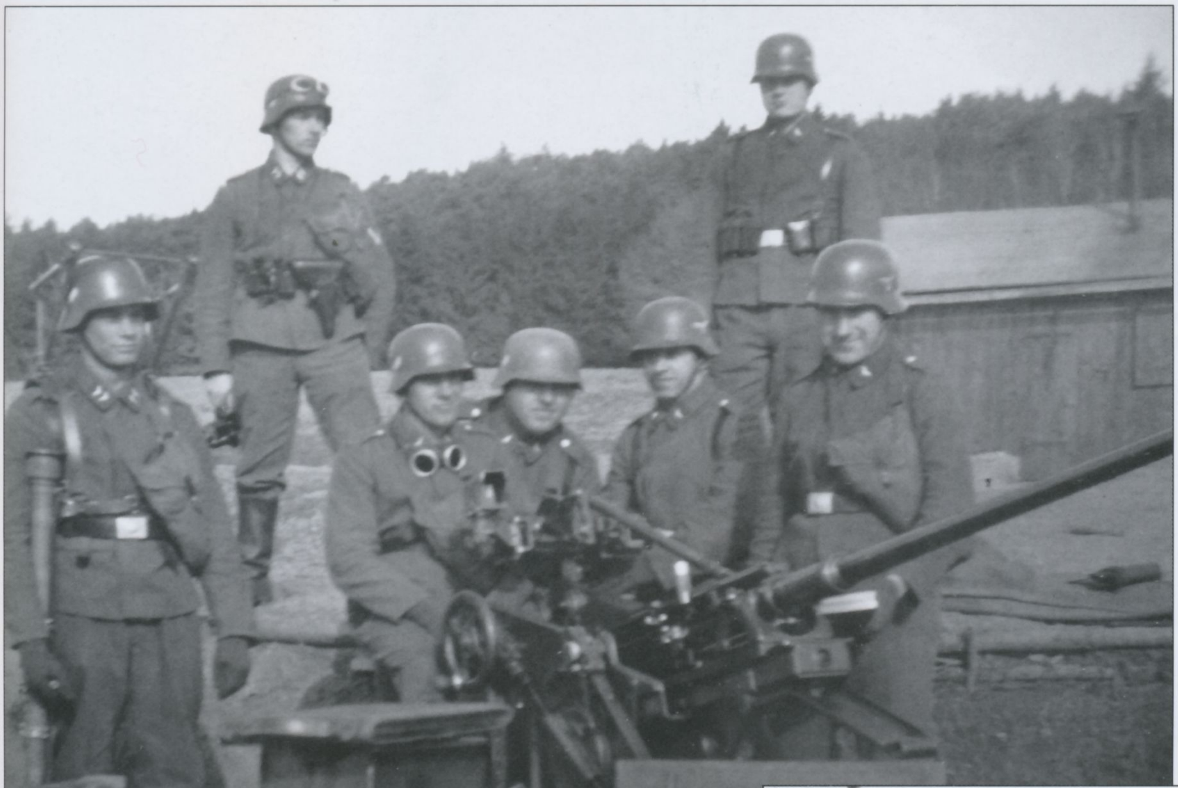


A light moment around a 2cm Flak 38 with its distinctive angled gun shield. A *Feldwebel* (center) crew in coveralls, greatcoat (third from left) and *Drillichanzug* (second from right). Both 2cm models had a five-man crew: layer (gunner), range setter, course setter, loader and rangefinder operator.

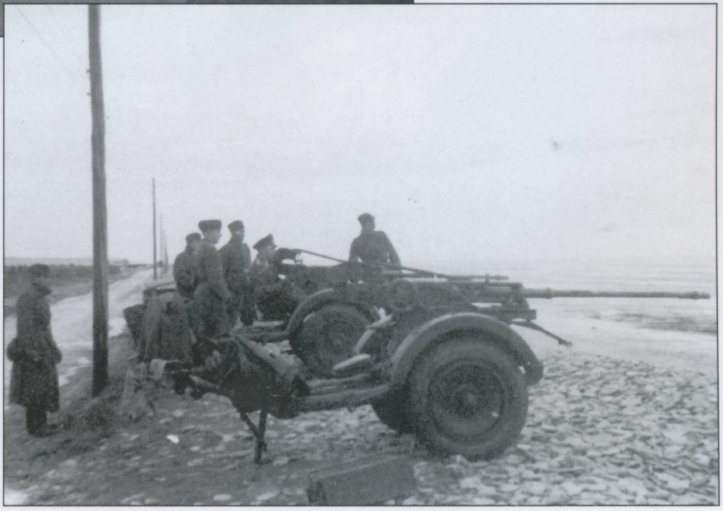
Krupp Schnautzer pulls a Flak 38 across a pontoon bridge. During Operation Zitadelle in July 1943 the 7.Flak-Division reinforced the artillery of the XI Army Corps with 72 8.8cm guns and over 900 guns of smaller caliber.

A truck-mounted Flak 38. In order to provide truly effective air defense for mobile units flak had to keep up. The main advantage of the Model 38 over the Model 30 was a higher practical rate of fire (200 vs. 120 rpm).

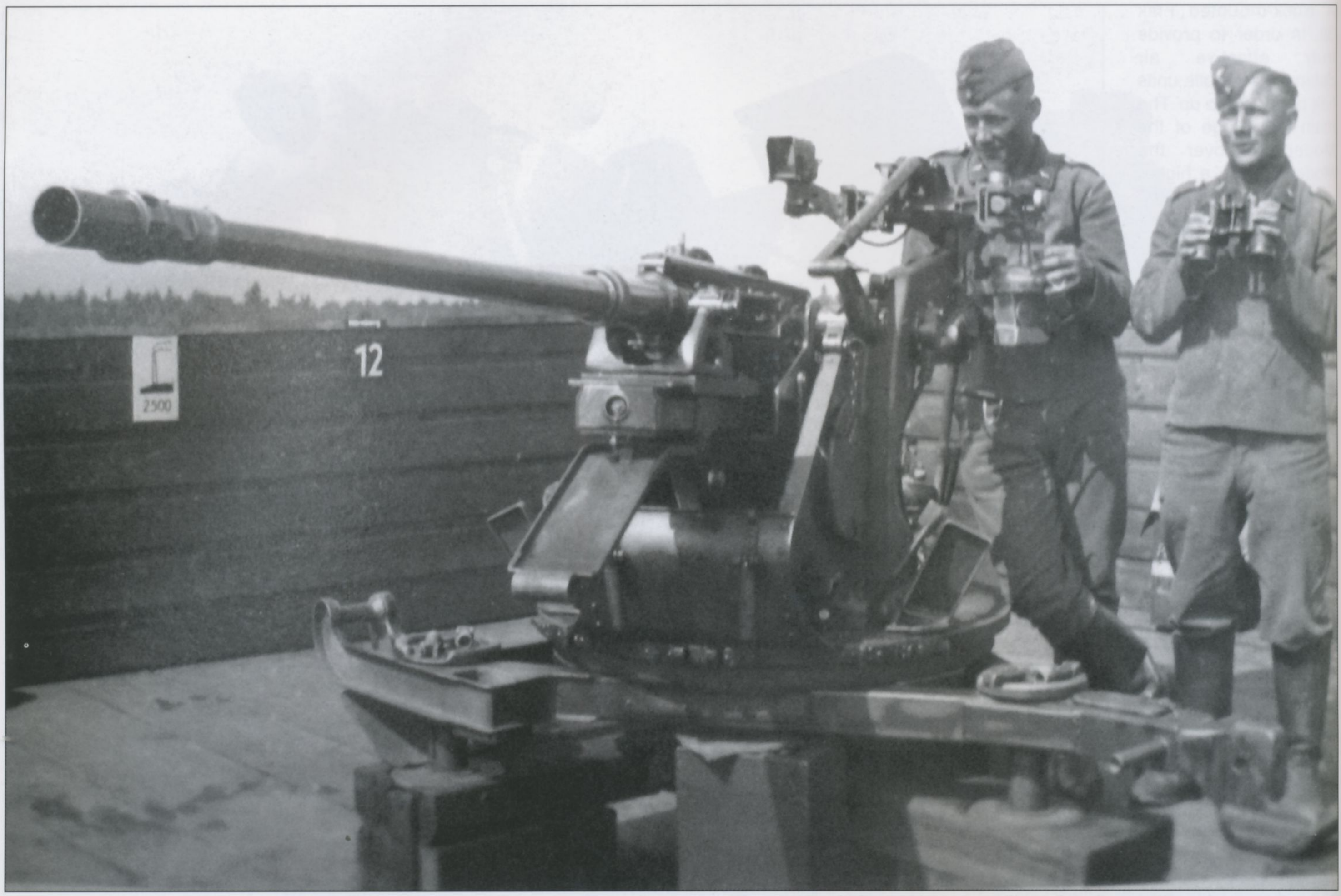




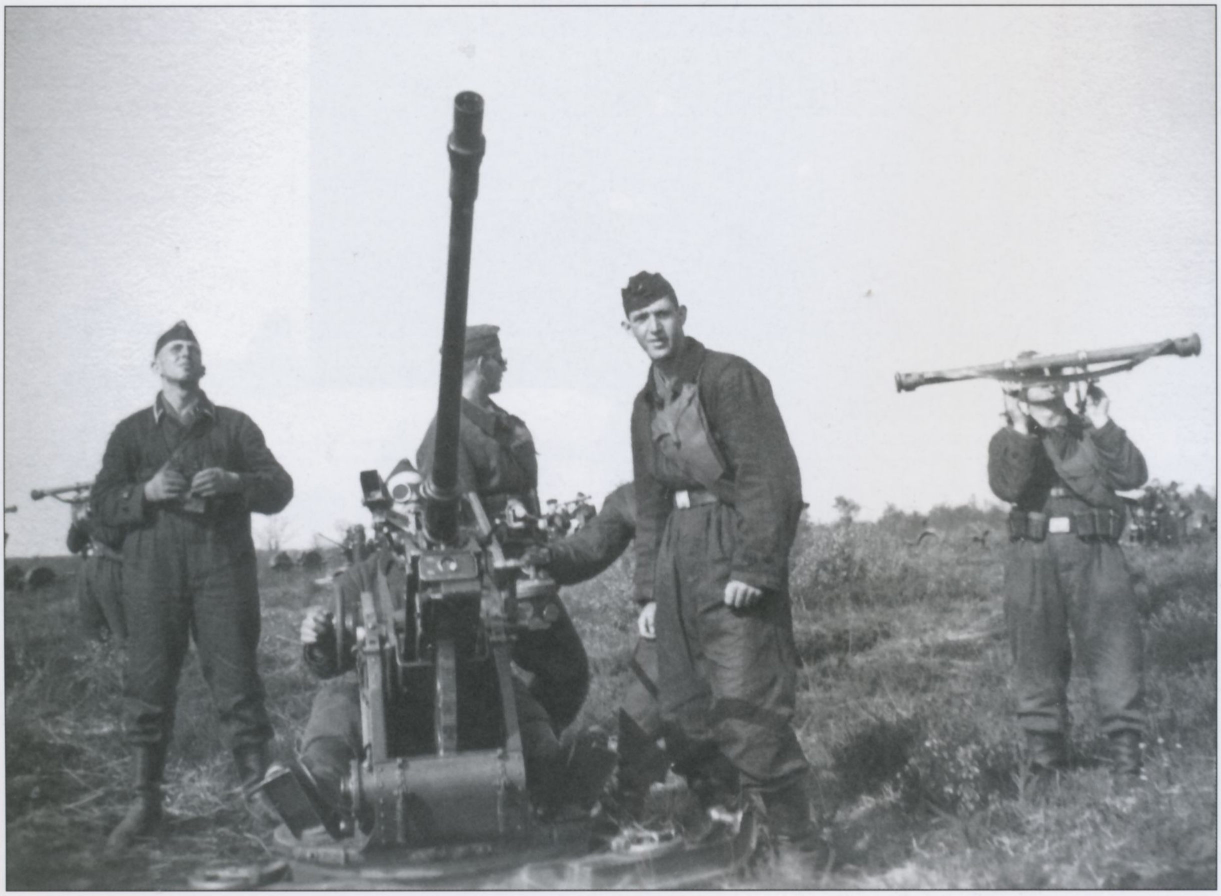
Crew of Flak 30 in *Fliegerbluse* and for some reason most have *Gasplane* (gas cape) strapped across their chests. *Obergefreiter* commander stands in rear with Luger holster on his belt. *Gefreiter* on left holds rangefinder while wearing its frame on his shoulders. The stereoscopic rangefinder had a six power magnification and a range of 800-26,200ft.



A pair of 2cm Flak 30s at a firing range in Germany. These weapons could fire both on their trailer (*Sonderanhanger* 51) or when ground mounted. The 2cm was Germany's most numerous flak weapon, used by the Army, Navy, Luftwaffe and Waffen SS.

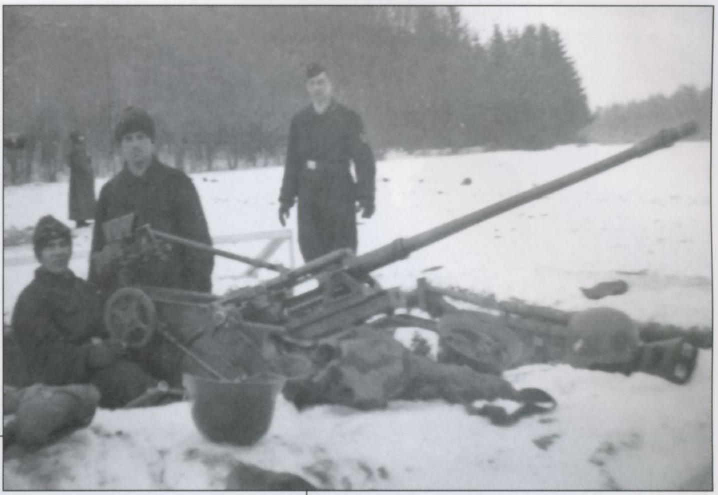


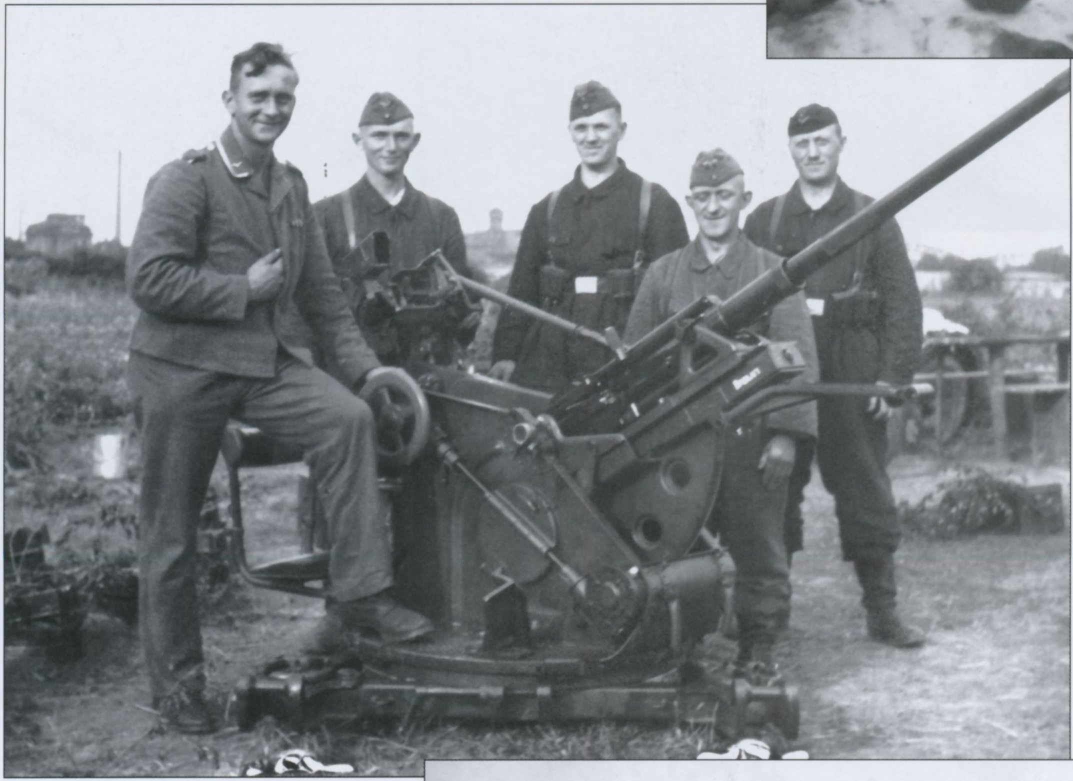
A Flak 30 here manned by two men in *Fliegerbluse* and *Feldmütze* (also known as *Fliegermütze*). Small sign on wall to left indicates there is a smokestack at 2500 mils. Of the 2cm (.79 inch) family of weapons, Models 28/29 were developed by Oerlikon for the Kriegsmarine, Model 30 by Rheinmetall-Borsig and the Model 38 by Mauser.



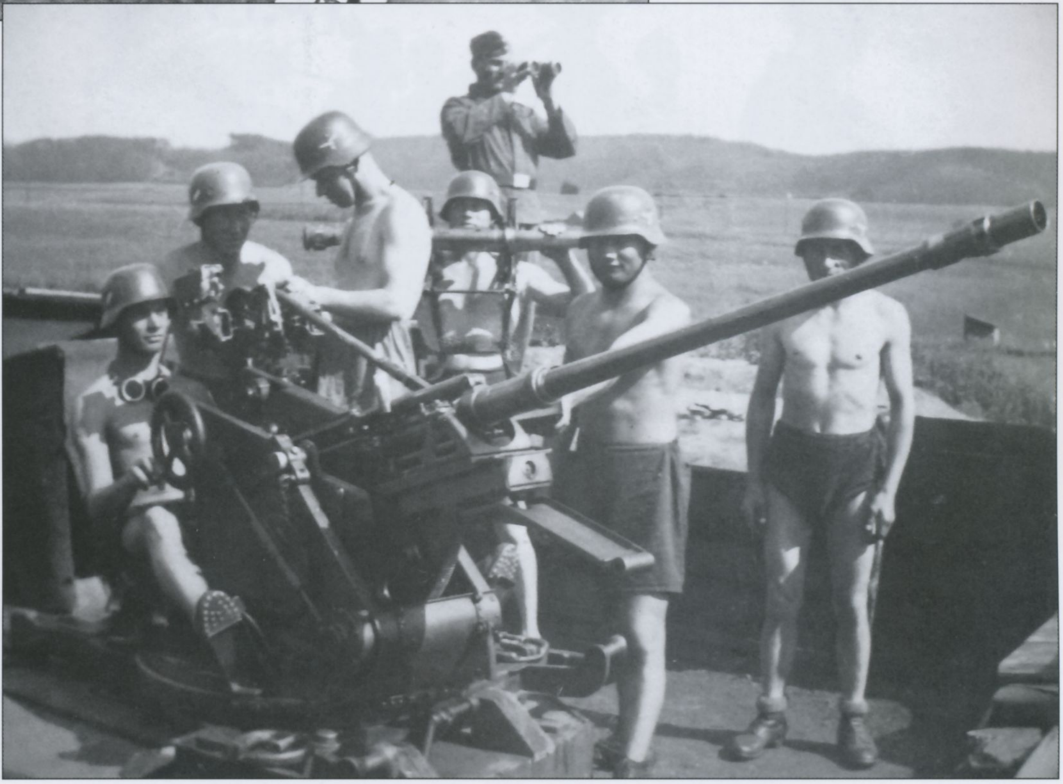
Flak 30 crew in coveralls under *Feldwebel* at left. These men also have their *Glaspläne* as part of their uniforms. The 1m rangefinder can be seen mounted on its frame to right. Numerous other guns and rangefinders can be seen in the background.

A Flak 30 dug-in in a winter field. The Model 30 was recoil operated and could fire single shot or automatic while its "trigger" was a foot pedal.

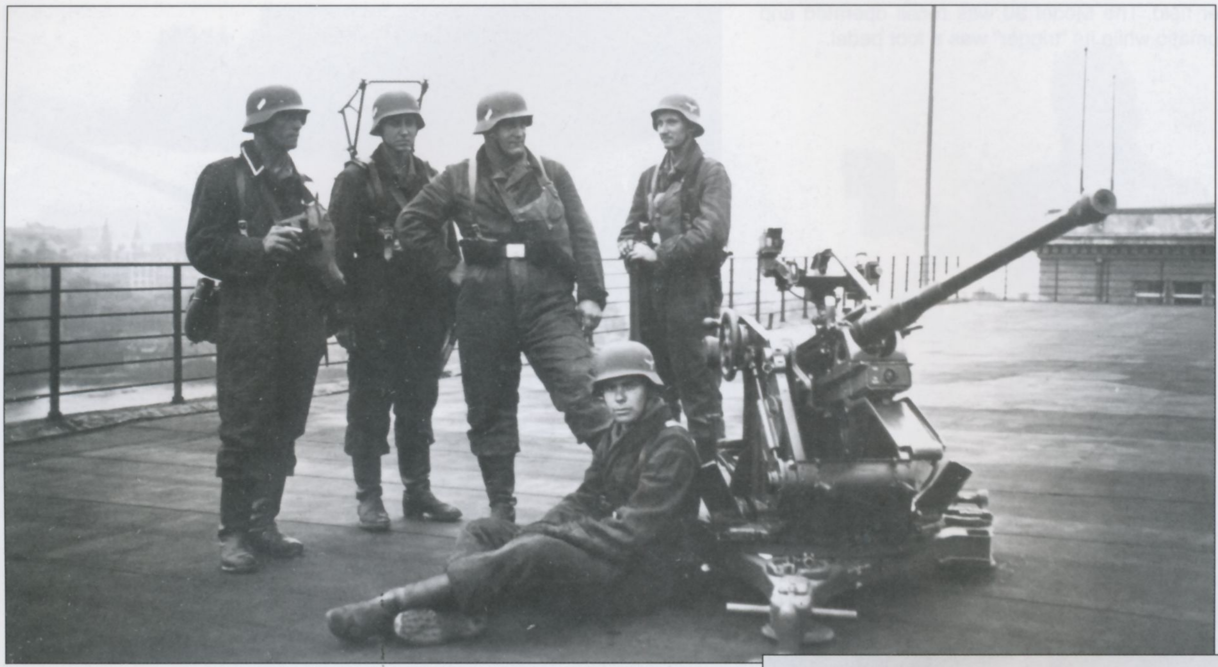




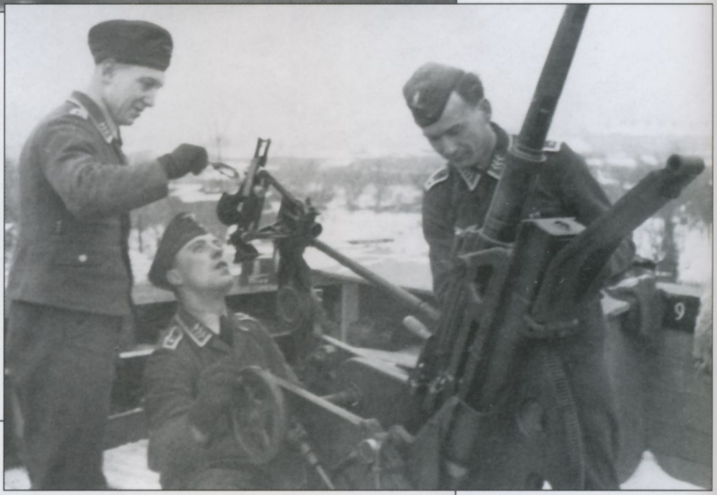
Flak 30 and standard five-man crew. *Feldwebel* with collar *Tresse* strikes a Napoleonic pose. Light flak was especially accurate against targets under 1,500ft altitude.



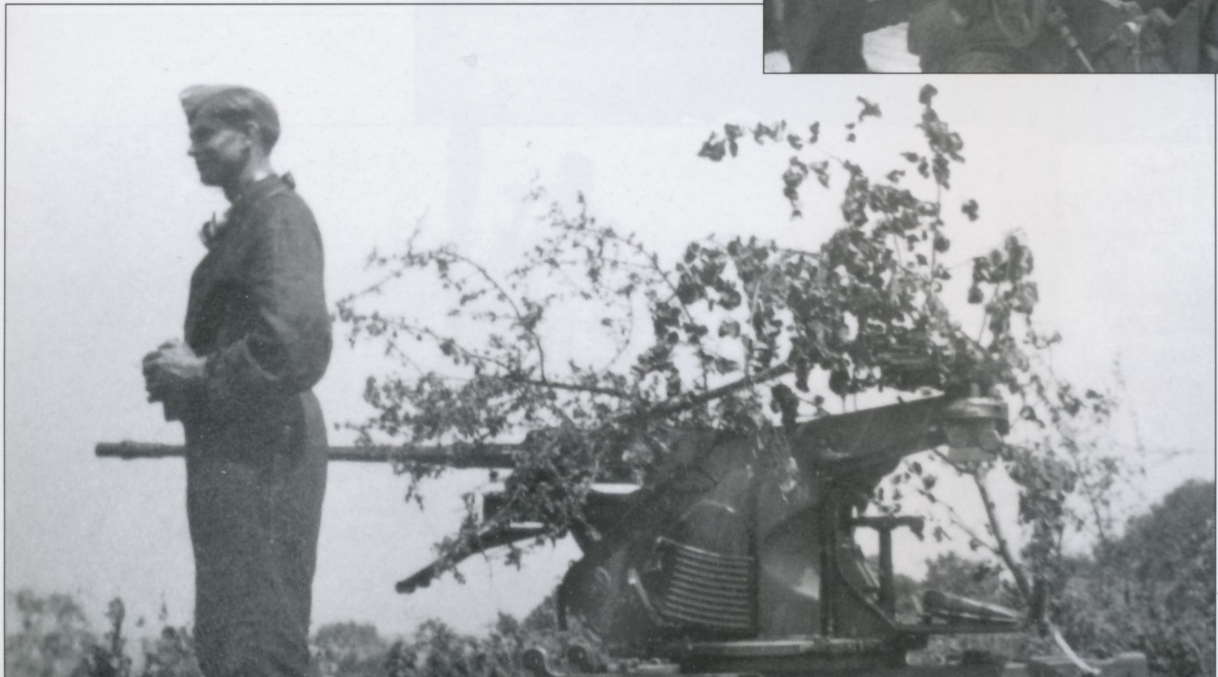
Evidently in a warm climate, a Flak 30 crew in hob-nailed boots and gym shorts. Besides their helmets, the gunner's *Schutzbrille* is their only recognizable uniform item.



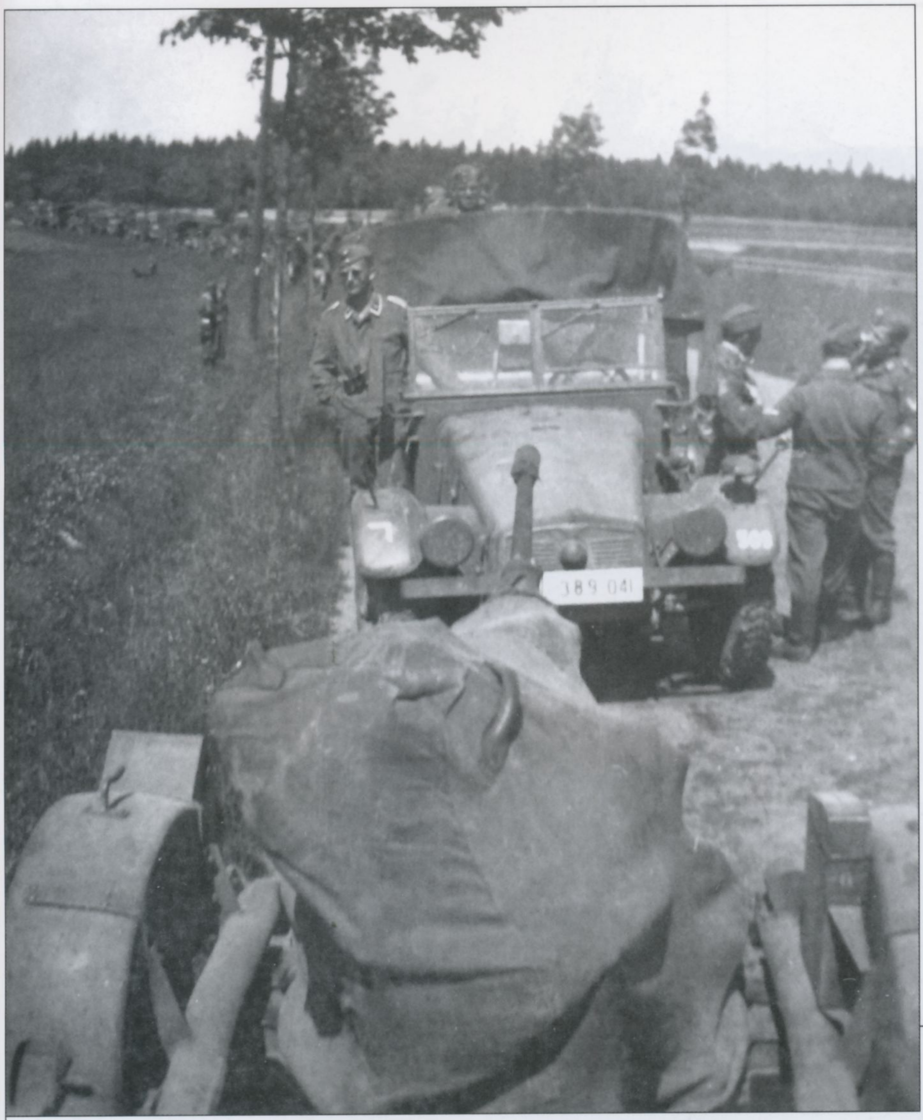
Another Flak 30 crew under *Feldwebel* on left. Gun appears to be mounted on a roof top with a large city below.



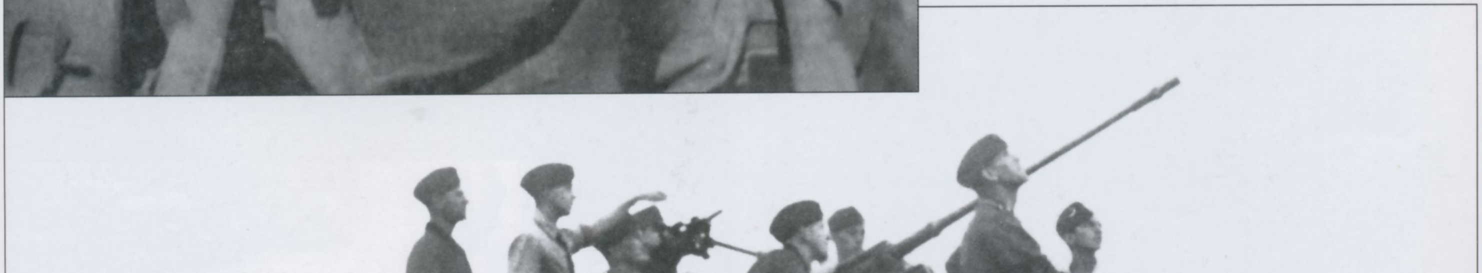
Three *Feldwebel* crew a Flak 30. Men left and center wear *Tuchrock* with neck tie while man on right wears *Fliegerbluse*.



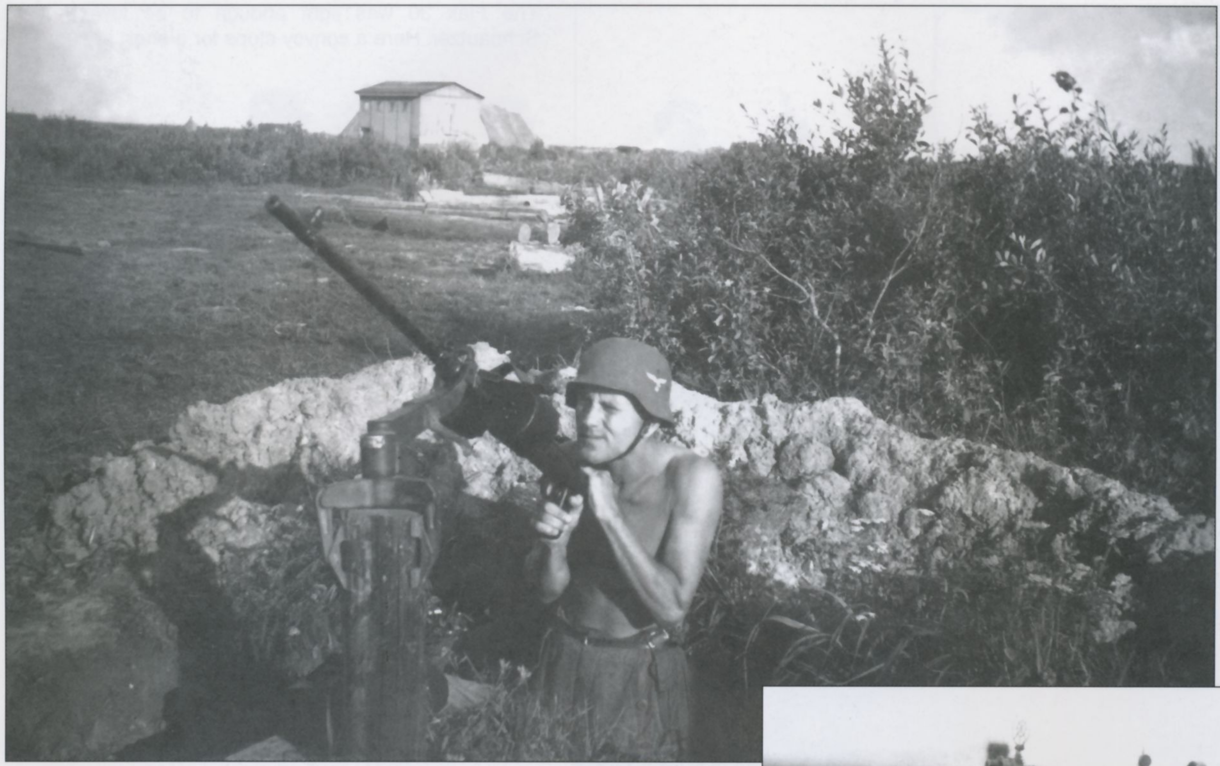
A lightly camouflaged Flak 30. The Luftwaffe adopted this weapon in 1935. Light flak guarded troops in the field, rail lines, bridges, etc.

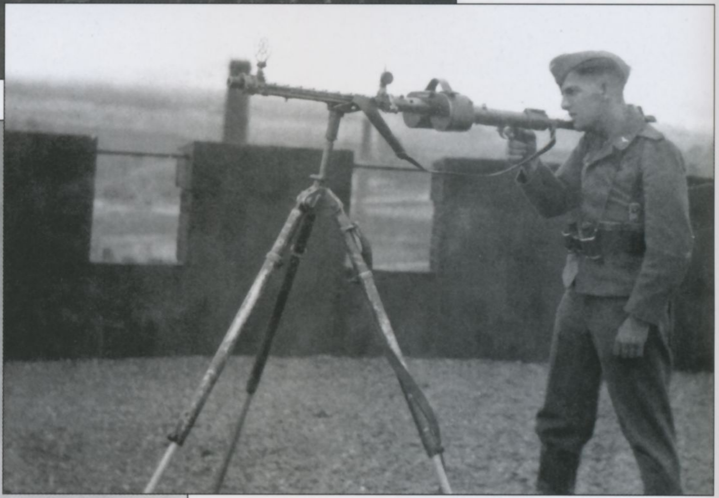


The Flak 30 was light enough to be towed by a Schnautzer. Here a convoy stops for a short pause.

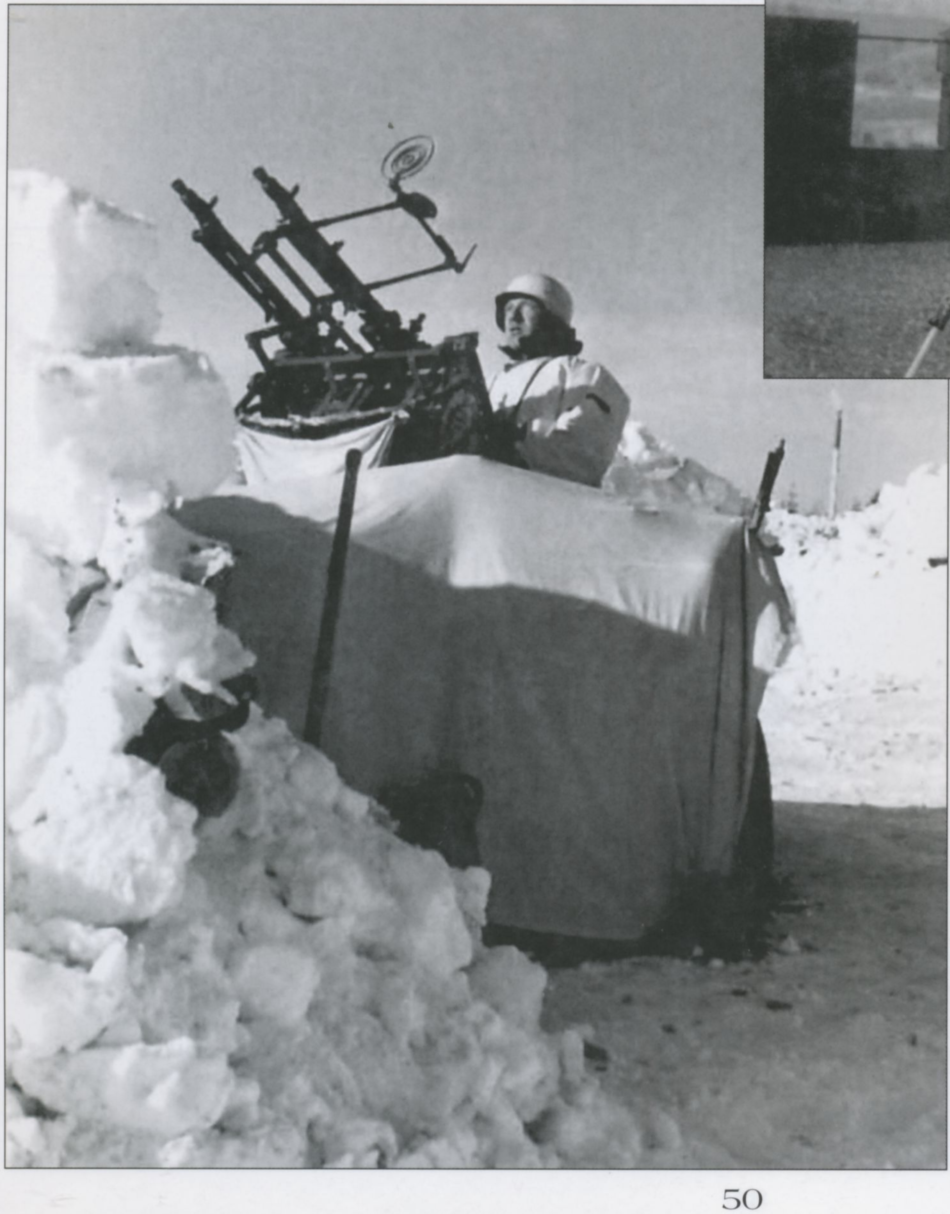


Flak 30 mounted on a Henschel 33D1 truck. Flak forces had to be able to quickly move to where ever the threat existed.

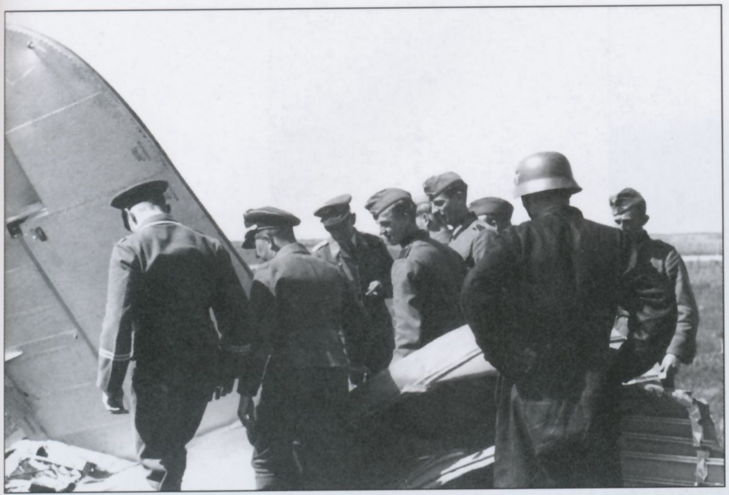


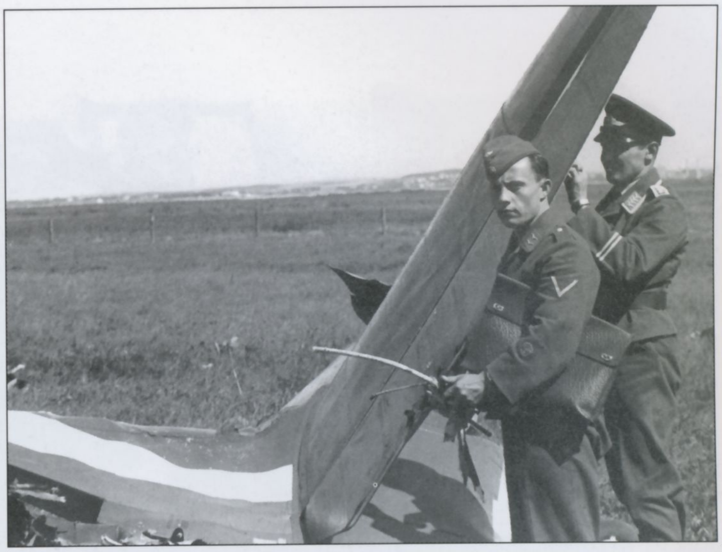


Two photos of the standard Luftwaffe aircraft machine gun, the 7.92mm MG15, mounted for ground use. Both use the *Doppeltrommel* (double drum) that could hold up to 75 rounds. As the Luftwaffe aircraft loses mounted guns like these were no longer need in flying units.

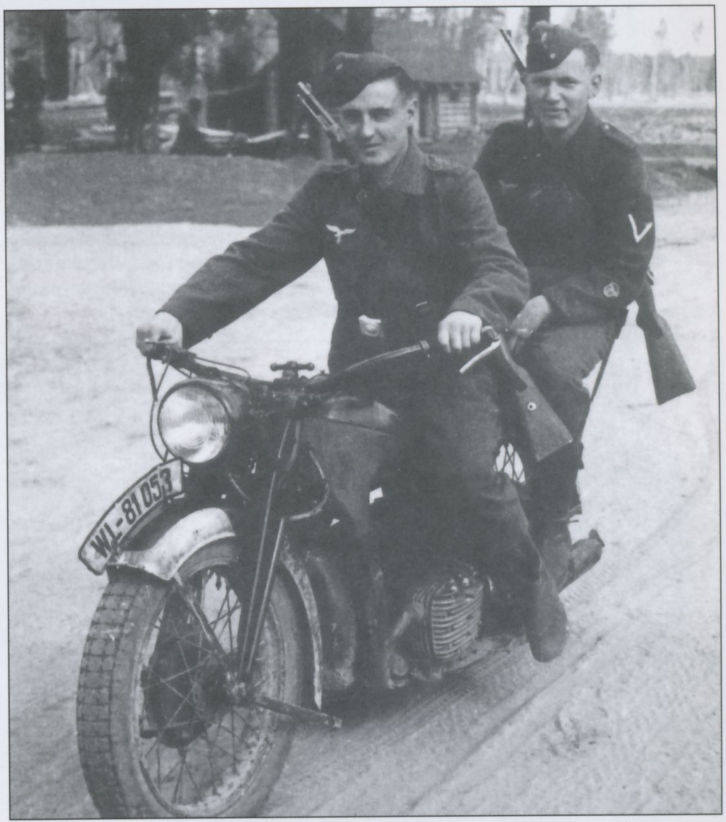


Twin MG34s linked with a single sight and trigger, probably in the USSR.

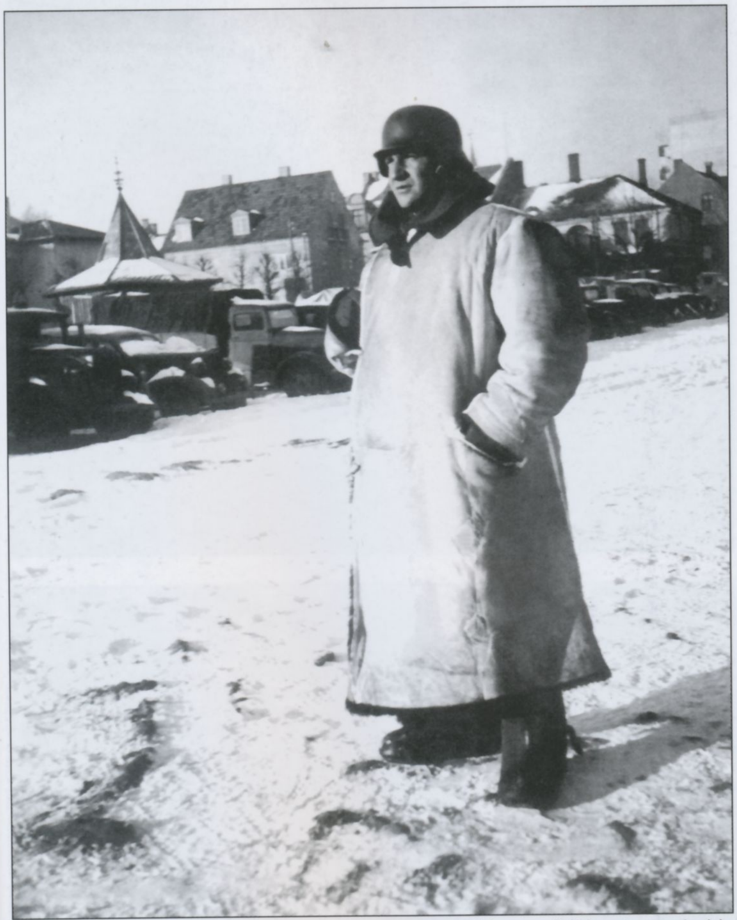




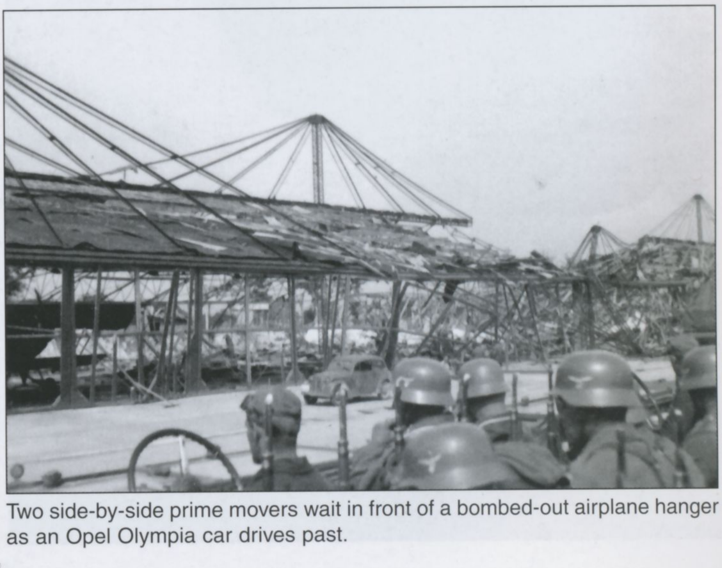
Two photos of Luftwaffe men inspecting the tail of a downed enemy airplane. The NCO on both photos is a *Hauptfeldwebel* (most senior NCO or even a warrant officer in some countries) as denoted easily by his cuff braid.



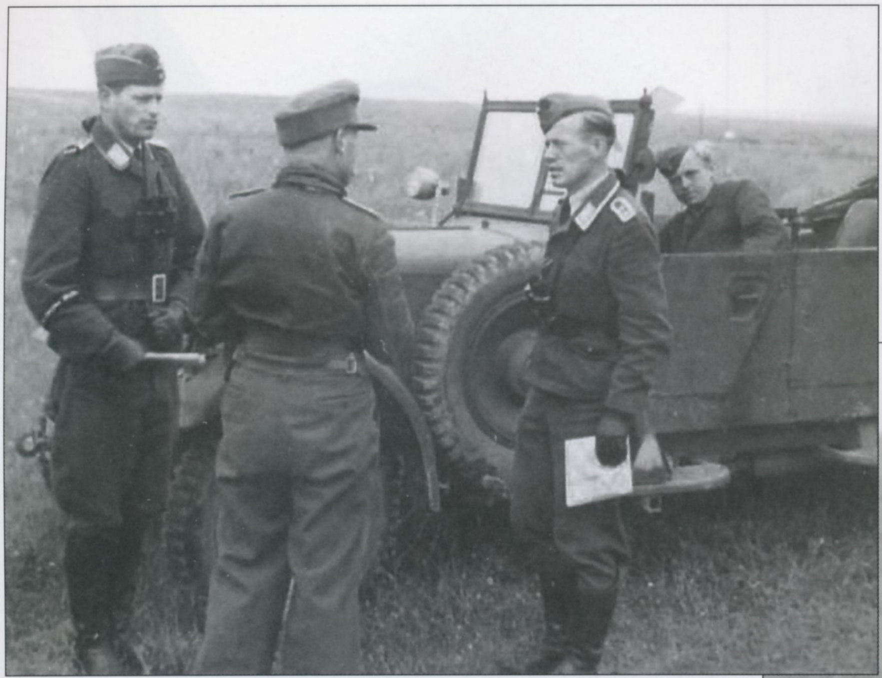
An airman and his *Gefreiter* passenger ride a Zundapp motorcycle.

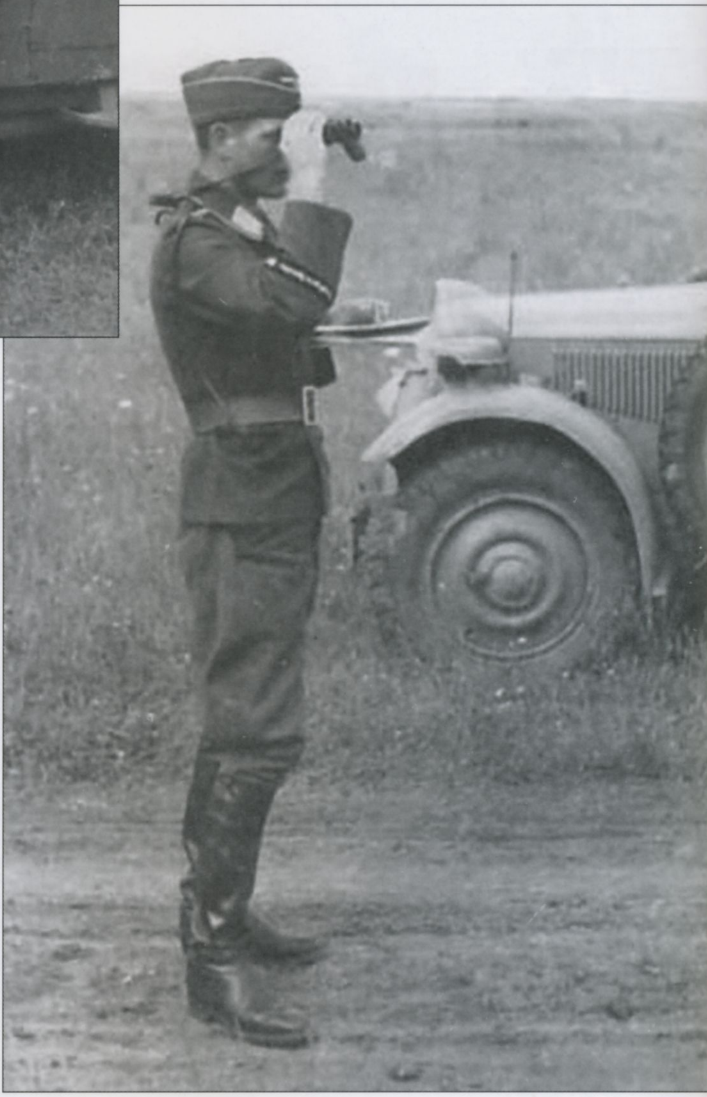


A Field Division troop in sheepskin greatcoat and heavy felt boots, probably in Germany. These heavy uniform items were widely available after the winter of 1942-43 and intended mainly for those standing guard or sentry duty (*Postenpelz*); they would be impractical for active combat. Sadly hundreds of trainloads of winter clothing were available for the winter of 1941-42, but sat immobile in rail yards in Germany; at that time priority of rail cargo sent to the USSR went to ammunition, fuel, etc. so troops had to do without.

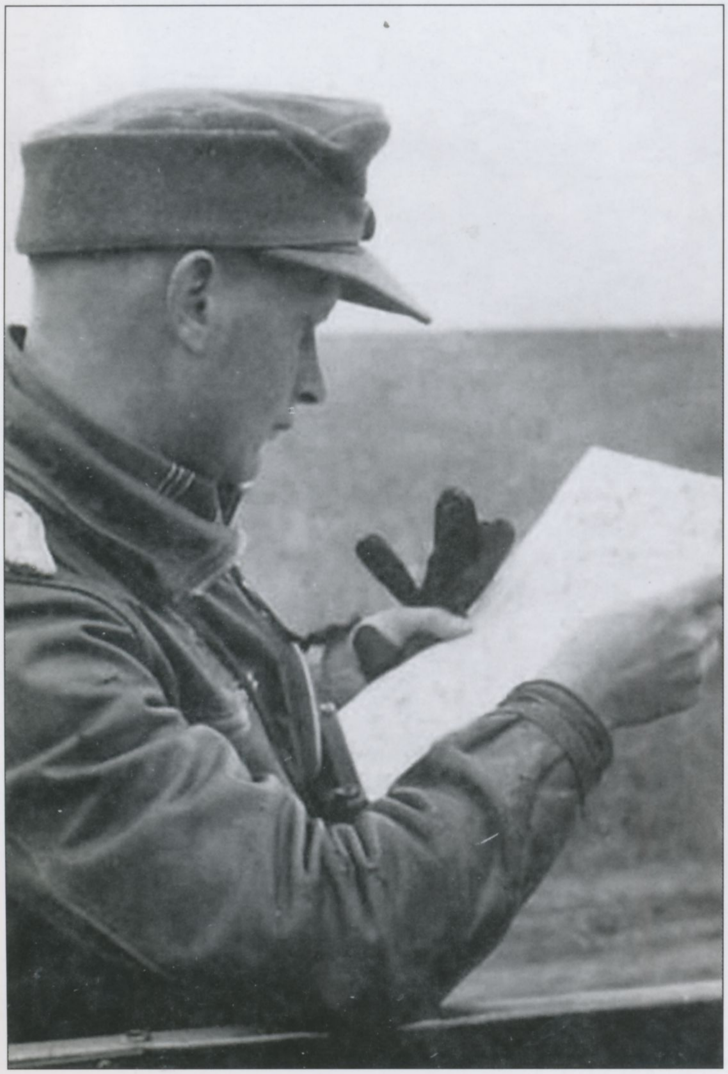


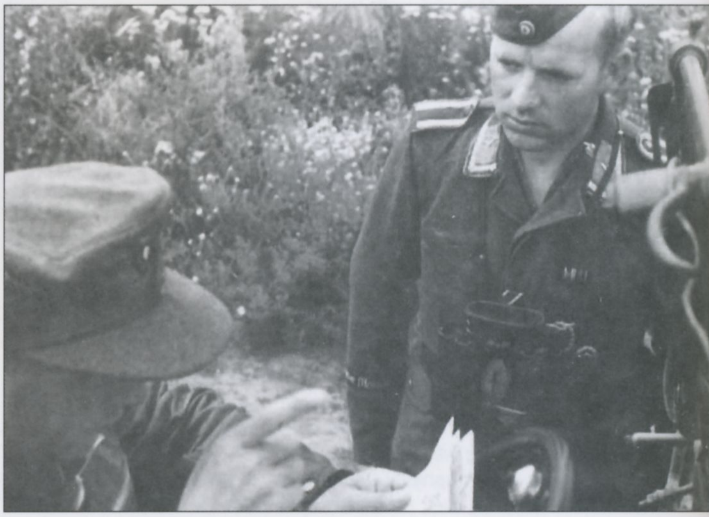
Two side-by-side prime movers wait in front of a bombed-out airplane hanger as an Opel Olympia car drives past.

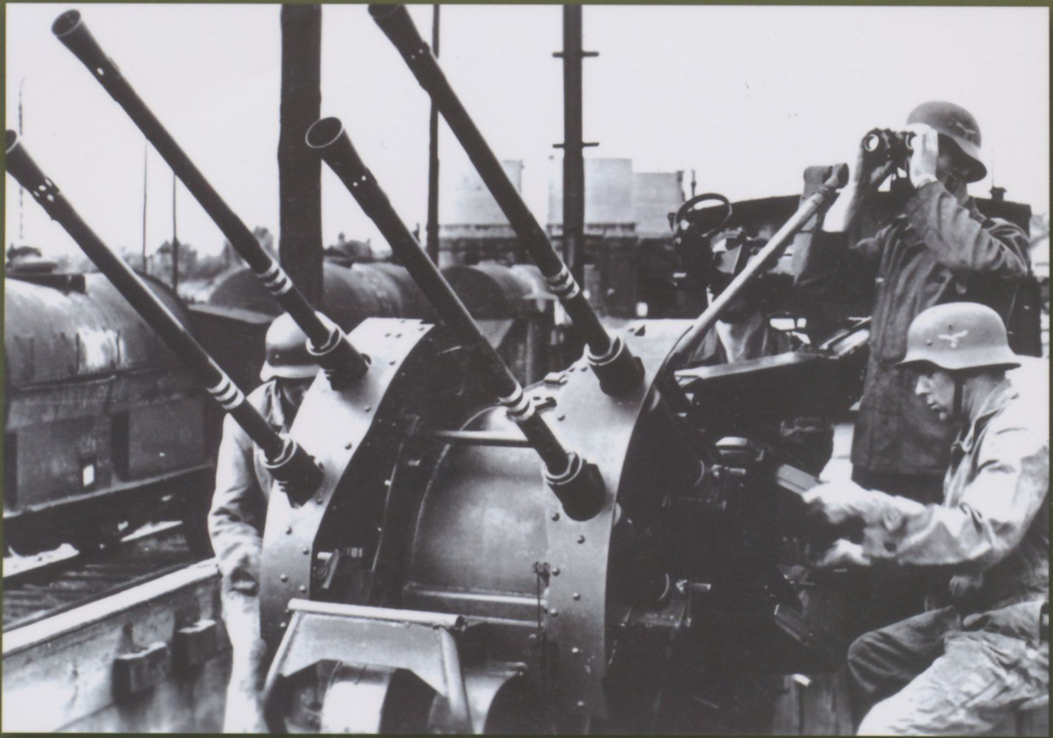




Interesting series of photos with a major, lieutenant, *Feldwebel* and airman. In top photo they can all be seen in and around a staff car. Right photo shows the major's illegible cuff title and officers belt buckle. The lieutenant is reading a map in lower left photo. The lieutenant (now in the driver's seat) talking to the *Feldwebel*. Clearly visible are the NCO's collar patches, cuff title, two ribbons on his chest, the Iron Class 2nd Class ribbon in his *Fliegerbluse* buttonhole, a Luftwaffe Ground Assault badge and gold Wound badge (partially obscured). This man has evidently seen a lot of action!







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